A DESCRIPTION AND EVALUATION OF THE INTRODUCTION OF A PRIMARY CARE CLINICAL PSYCHOLOGY SERVICE IN ONE HEALTH DISTRICT

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Thesis submitted for the degree of Doctor of Philosophy in Psychology.

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February 1985

For my father, Thomas Claude Jerrom

"Most therapists will assume that no one has received appropriate treatment until they themselves have had a try, and this is not necessarily an attitude to be discouraged".

Shepherd, G. (1983) chapt. 16 in Watts, F.N. & Bennett, D.H. Theory & Practice of Psychiatric Rehabilitation. Wiley, Chichester. (p: 343).

"The therapist should not get his contribution, however successful, out of perspective. A course of treatment is one event in a life time of influences many of them working in contradictory directions. It is not the focal point of the patient's life, as some therapists are inclined to imagine, but something that will recede into the past as time goes by .....it is no more than a concentrated, selected and carefully directed sample of life's experience".

Bancroft, J. (1974) Deviant Sexual Behaviour: Modification & Assessment. Clarendon Press, Oxford (p:226).

ACKNOWLEDGMENTS

Many people have assisted with this project in a variety of ways. I am grateful firstly to David Gerver, who was the chief instigator of the project, and who supervised this work in its early stages. Following his sudden death in 1981 I have missed him greatly both as a colleague and friend. Since then Peter McEwen has acted as my supervisor, and I am grateful for his encouragement and thoughtful comments. Two of the members of the original Management Committee for the project, Richard Simpson and David Pemberton, have both provided clinical support whenever the need arose, Richard also made valuable and detailed comments on earlier drafts of this thesis. Hamish Barber and David Clarke served as external assessors on the Project Steering Committee and provided both advice and encouragement. Clive Denton, general administrator at the Forth Valley Health Board, provided practical assistance particularly in the early stages of the project.

Since starting in our department two years ago Kevin Power has, by his hard clinical work, reduced pressure on me to permit more time for writing up. Graham Cameron and Ranald Macdonald both gave valuable statistics and computing advice. I have been lucky to have three hard working, competent and very pleasant secretaries during the 6 year period, Rosemary Macdougall, Marguerite Wall and Karina Robinson. Gail Kennedy and Jane Kistowska were both enthusiastic and efficient research assistants. Anne Milne typed a first draft of 3 chapters of the thesis, the entire final version was typed by Ina Mack, with speed, precision and good humour. Finally I am grateful to my wife Anne, for her tolerance of the enormous intrusion this work has made into our lives, for her constant support, and above all for her belief that I would eventually complete it.

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ABSTRACT

The introduction of a primary care clinical psychology service into one Scottish Health District is described and evaluated. The service was widely used by G.P.s, and the volume of referrals increased each year. After 5 years of operation 83% of G.P.s had referred cases. The types of problems referred are described, two thirds of patients were suffering from generalised anxiety or phobias. The patients were a chronic population, the average length of problem being 6.9 years. G.P. and psychiatrist referred patients were compared, the latter had longer histories and there were differences in the types of problem referred. Outcome was evaluated using a number of measures. Consultation rate fell significantly post treatment and a significant proportion of patients stopped psychotropic medication. There were significant reductions in psychologist ratings of severity and in handicap, and in patient self-ratings of severity and General Health Questionnaire scores. Patient satisfaction with treatment 6 months post discharge was surveyed. The G.P.s satisfaction with the service was surveyed and found to be high. At follow up G.P.s rated 69% of patients as receiving "definite benefit" and 31% as "unchanged". A study of treatment of the commonest problem referred, generalised anxiety, was conducted using a waiting-list control group. Treatment group patients improved significantly on self rating questionnaires, controls did not change, but showed a similar order of treatment response when they did enter treatment. The costs of the service are compared to another report in the literature, and it is concluded that the service was cost-effective. A number of recommendations are made for further research in the field. It is concluded that primary care psychology services are feasible in terms of staffing levels, and also lead to significant patient benefit.

CHAPTER 1

INTRODUCTION

1.1 PSYCHOLOGICAL PROBLEMS IN PRIMARY CARE

"Over the past two decades, data derived from outpatient and daypatient statistics, general practice surveys, random sample surveys of the general population and psychiatric case registers have clearly demonstrated that psychiatric ill-health poses an immense challenge to the non-specialist general health and social services."(Williams & Clare 1979,. p.3.).

General Practitioners in Britain spend a considerable amount of their clinical time consulting with, and attempting to treat, patients with purely psychological problems. Evidence from two morbidity surveys conducted in general practice in England and Wales in 1955 and 1971 (General Register Office 1958-62, RCGP et al 1974) demonstrated that there had been a considerable increase in consultations for mental illness in general practice between the two survey years, the prevalence rate per 1,000 having more than doubled.

The most thorough British survey of the incidence and diagnosis of psychological problems in primary care was conducted in the late 1950s and early 1960s by Shepherd and his colleagues at the Institute of Psychiatry in London (Shepherd et al 1966, and Shepherd & Clare 1981). They surveyed 50 London general practices with a total sample size of 14,697 patients. Morbidity was defined by the general practitioners' own diagnoses using diagnostic criteria defined by the investigators. Using this method

14% of all consultations were defined as being for "psychiatric morbidity", making this the second most common cause for consultation among females and the fourth most common cause among men. The distribution of diagnoses and sex breakdown of Shepherd et al's (Ibid) sample are shown in Table 1.a. Psychological problems were almost twice as common among females as among males, the male/female ratio being 1:1.8, and a minimum of 63% of cases were diagnosed as "neurotic". Psychosis constituted only 4% of the sample, in marked to contrast to surveys of psychiatric outpatients and first admissions. Shepherd et al (Ibid) comment:

> "Evidently, the bulk of psychiatric patients attending the general practitioner's surgery represent a different part of the spectrum of psychiatric morbidity from those cases identified and treated by the hospital specialist." (Ibid, p.:85-86).

Shepherd et al report that only 5% of the psychiatric cases were referred for psychiatric assessment and treatment (3.5% of new cases, 7.5% of chronic cases), and the referral rate was lowest for neurotic cases. The authors defined chronic cases as an illness episode of more than one year's duration, and by this criteria 59% of male cases and 52% of female cases had a chronic illness.

Shepherd et al's study therefore presents a picture of G.P.s spending over one-seventh of their clinical time consulting with patients with purely psychological problems, of whom the majority are suffering from anxiety, depression and "personality disorders", and 95% will be retained in the care of the G.P. These findings concerning prevalence rates and diagnoses have been broadly confirmed by a number of other surveys in the U.K. and the

Table 1.a Patient Consulting Rates per 1,000 at Risk for Psychiatric Morbidity, By Sex and Diagnostic Group (from Shepherd et.al. 1966, p. 181).

Diagnostic Group	Male	Female	Both Sexes
Psychoses	2.7	8.6	5.9
Mental subnormality	1.6	2.9	2.3
Dementia	1.2	1.6	1.4
Neuroses	55.7	116.6	88.5
Personality disorder	7.2	4.0	5.5
Formal psychiatric illness ([1])	67.2	131.9	102.1
Psychosomatic conditions	24.5	34.5	29.9
Organic illness with psychiatric overlay	13.1	16.6	15.0
Psychosocial problems	4.6	10.0	7.5
Psychiatric-associated conditions ([1])	38.6	57.2	48.6
Total psychiatric morbidity ([1])	97.9	175.0	139.4
Number of patients at risk	6,783	7,914	14,697

([1]) These totals cannot be obtained by adding the rates for the relevant diagnostic groups because while a patient may be included in more than one diagnostic group, he will be included only once in the total.

U.S.A. (Marks et al 1979, Locke and Gardner 1969, Locke et al 1967, Goldberg et al 1976, Rosen et al 1972).

A further aspect of psychological problems in primary care which has been widely studied is the consultation rate of individual cases. Shepherd et al found that psychiatric cases consulted their G.P.s at almost twice the rate of the remaining patients in their survey in general, and also consulted at a significant higher rate for 8 out of 9 categories of major chronic illness, the only illness category where the difference was not significant being neoplastic illness. The finding that patients with psychiatric problems consult significantly more frequently than the general population has been reported by a number of authors (viz. Cooper et al 1969, Goldberg and Blackwell 1970, Hassall and Stillwell 1977). Hassall and Stillwell (1977), Westcott (1977) and Wilks (1975) all report that consultations with psychiatric cases last longer, the average consultation length for psychiatric cases in Hassall and Stillwell's study being 9 minutes and that for controls being 6.5 minutes. It has also been reported that psychiatric cases have higher than average rates for referral to non-psychiatric specialists and for general hospital admissions (Cooper et al 1969, Harvey-Smith and Cooper 1970).

In summary psychiatric patients consult their doctors at an above-average rate and for longer, they are more likely to suffer from a range of acute and chronic physical illnesses and to be referred for specialist medical investigation. A G.P. spends on average 15% of his clinical time consulting with such patients, although there are large interpractice variations, and the majority of these cases are suffering from emotional (i.e. affective) problems, rather than from formal psychiatric illesss. However in the U.K. the G.P. retains most of the psychiatric cases in his list in his

own care, referring only a small proportion on for specialist psychiatric attention. A number of authors have suggested that this pattern of health needs and care provision is not desirable for either the G.P. or patient, the case concerning this can be summarised into three types of argument.

Firstly the management by G.P.s of psychiatric cases has been studied, and has been found to be frequently less than ideal. Shepherd et al concluded their investigation of the treatment offered to their survey patients thus:

> "Our findings, then, show that the treatment of minor psychiatric disorders in general practice is often haphazard and inadequate. This state of affairs seemed in many cases to be as unsatisfactory to the doctors concerned as to their patients. Both the attitude questionnaire responses and numerous discussions with the survey practitioners confirmed that many of the latter, while regarding the treatment of neurotic disorders as an integral part of their work, felt themselves inadequately trained and equipped to deal properly with these conditions, and experienced more difficulty and embarrassment in handling neurotic illness than any other type of disorder."(Shepherd et al 1966, p.175-176).

Rawnsley and Loudon (1962) and Cooper (1964) both report that a majority of G.P.s in their surveys regarded psychiatric patients as more difficult to treat than other types of case, and most also regarded themselves as being inadequately trained for the treatment of such patients. Cartwright and Anderson (1981) reported that the proportion of G.P.s who felt that it

was appropriate to be consulted concerning "family problems" had fallen by 20% (from 87% to 67%) between two surveys the authors had conducted among U.K. G.P.s in 1964 and 1977. They found that G.P.s attitudes towards this aspect of their work correlated with their enjoyment of general practice, doctors who were most dissatisfied with working in primary care were more likely to regard strictly non-medical matters as being less appropriate for their attention.

Secondly studies investigating patient satisfaction with G.P. care of psychological problems have found that patients tend to be dissatisfied with the type of management offered (Brown and Ginsberg 1979, Johnson 1973 and 1974, and Gardiner et al 1974). Patients in these studies were usually seeking some form of help other than psychotropic prescription, and, as a result of this, default rates from prescribed drug regimes of 45% and 65% have been reported (Gardiner et al 1974, Johnson 1974).

Thirdly, the volume of prescribing of psychotropic drugs in primary care has been widely criticised by authorities in the field (Lader 1978, Trethowan 1975, Skegg et al 1977, Tyrer 1974 and 1978, Williams 1979, Lancet 1978). Four of these papers report that psychotropic drugs form the largest and most expensive sub-category of the N.H.S. drug bill, and that the volume of prescriptions for psychotropics has increased steadily since the introduction of the Benzodiazepines 25 years ago. Williams (1979) does note that increases in prescription rates for one class of psychotropics, hypnotics, started to slow up during the latter 1970s, and more recent reports suggest that this trend has since spread to the tranquillising drugs (Times Report: 8.2.84). These gradual changes in patterns of drug usage are probably due to a combination of medical education aimed at discouraging G.P.s from

long term prescribing of psychotropics (Committee on the Review of Medicines 1980), and on patients' attitudes towards drug usage also changing in response to frequent campaigns in the popular press about the dangers of Benzodiazepine dependency.

In addition to simply noting the volume of psychotropic prescriptions, and the economic implications of this, a number of authors have also commented upon the further implication that psychotropics are being prescribed too freely for "personal problems", where some form of counselling might be a more appropriate management (Trethowan 1975, Lader 1978, Journal of the Royal College of General Practitioners: Editorial 1979). There is now an accumulation of evidence that suggests that the therapeutic effects of Benzodiazepines decline after approximately 4 months usage (Committee on the Review of Medicines 1980), and as a result of this the prescribing handbook for G.P.s, the British National Formulary, now strongly recommends against long term prescribing of Benzodiazepine tranquillisers and hypnotics. Furthermore the occurrence of withdrawal symptoms with Benzodiazepines, and resultant risk of dependence, has been increasingly noted (Covi et al 1973, Winokur et al 1980, Lader 1978, Petursson and Lader 1981).

In summary three general arguments have been advanced for the proposition that the present management by G.P.s of psychological problems is neither the most effective nor desirable for the G.P. or patient. Firstly G.P.s management has been criticised clinically and there is evidence that at least a minority of G.P.s find such cases difficult to manage, secondly studies of patient satisfaction have reported high levels of dissatisfaction with G.P. management and poor compliance with drug treatment and thirdly

the long term prescribing of Benzodiazepine drugs has been increasingly criticised as being of dubious efficacy, possibly dangerous and certainly costly.

A further aspect of the problem is the prognosis of neurotic illness in primary care. Longitudinal studies of this have reported a discrepancy between situational reactions and chronic disorders, the former often remit within 6 months whereas the latter will not respond to G.P.s management of their cases (Mann et al 1981, Cooper et al 1969, Kedward and Cooper 1966, Harvey-Smith and Cooper 1970, Huxley et al 1979).Kedward and Cooper (1966) report a 3 year follow-up of all of the psychological cases identified in the survey by Shepherd et.al. (1966). Only 28% of cases were rated as recovered by their own doctors, and 48% were rated as being unimproved. In a further follow-up study from the same sample Kedward (1969) reports that "new" cases at admission had a good prognosis, 73% being recovered 3 years later. However chronic cases, defined as those with symptoms of over one year's duration, had a poor prognosis, 55% being rated as unchanged at 3 year follow-up. Mann et al (1981) in a detailed study of a cohort of 100 primary care patients with psychological problems found that 48% of males and 50% of females were still "cases" at a one year follow-up. These patients who were psychologically ill throughout the year studied tended to be older, to be more severe at initial assessment, to have a poorer quality of social supports and they were also more likely to be taking psychotropic medication. Evidence from these longitudinal studies therefore reveals a core of chronic psychological cases in primary care, whose symptoms will not remit within one year and who will apparently not respond to their doctor's management of their case.

In the introduction to their recent book on the topic:

"Psychological Disorders in General Practice", Williams and Clare (1979) assume that the case for a search for alternative methods of dealing with the large pool of psychiatric morbidity is established, and proceed to consider alternative models of care.

1.2 MANAGEMENT METHODS FOR PSYCHOLOGICAL PROBLEMS IN PRIMARY CARE

Clare and Williams (1979) describe four approaches to providing better services for patients with psychiatric or psychosocial problems in primary care.

The first of these is the proposition that psychiatrists should deal with a larger part of the morbidity pool than is the current practice in the U.K., this being achieved either by the patient being able to self-refer directly to the psychiatrist (Fink and Oken 1976) or by a large expansion of the psychiatric services. Clare and Williams reject both of these propositions, the first on the grounds that there are a number of advantages to the development rather than contraction of the role of the G.P. in dealing with psychological problems (World Health Organisation 1973). They reject the second proposition as a solution on the grounds that, even if sufficient resources were available to double the number of psychiatrists working in the U.K., this would only permit 10% rather than 5% of the morbidity pool to be referred.

The second type of approach to improving services Clare and Williams identify is the provision of training in brief psychotherapy techniques tailored to primary care requirements for general practitioners. In the U.K. the best known work in this field is the theories and research of Michael

Balint and his colleagues (Balint 1968, Balint 1971). However, Balint's methods are based on an essentially psychodynamic model of behaviour and therefore are unlikely to ever achieve widespread acceptance among the G.P.s in the U.K., where psychoanalytic ideas have never become popular even in Psychiatry. In reality Balint's methods will probably continue to be practised only by a small but enthusiastic cult following, although most G.P.s will continue to be familiar with his work via their vocational training.

Simpler counselling methods for use by G.P.s have been developed, a good example being the training given to G.P.s in Catalan et al's (1984) study, and clearly further development and evaluation in this area is a priority for research on the management of psychological problems in primnary care.

The third strategy Williams and Clare point to is the development of closer liaison between general practitioners, psychiatrists, clinical psychologists and social workers, whilst at the same time "keeping the patient firmly in the primary care situation" (Ibid p.5). They emphasise the importance of evaluative research of the possible roles of all three types of professional. They also advocate the use of volunteer organisations and self-help groups (Robinson & Henry 1977, Caplan & Killilea 1976), but again note the importance both of evaluation and of establishing the acceptibility of such organisations to G.P.s and patients alike. Simpson (1981) expands the concept of closer liaison between professions in primary care by allocating a "network" approach to community services.

Thus Clare & Williams identify two ways in which the care of mental health problems in primary care in this country can be improved, firstly G.P.s

should have more specialist training in non-drug treatments, and secondly other mental health professionals should become closely involved in primary care services. This thesis is concerned with one aspect of the second strategy, the development and evaluation of a clinical psychology service in primary care.

1.3 ARGUMENTS FOR, AND THE DEVELOPMENT OF, CLINICAL PSYCHOLOGY SERVICES IN PRIMARY CARE.

Liaison between clinical psychologists and G.P.s is a recent development in the U.K. health services, having started in the early 1970s.

The first publication in the U.K. on the topic was a paper by Broadhurst (1972), which outlined some general arguments for psychologists becoming involved in primary care. Kincey (1974), in a Journal of the Royal College of General Practitioners paper entitled "General Practice and Clinical Psychology - some arguments for a closer liaison", expanded these arguments and also described the type of cases suitable for psychological input. He suggests five categories of problem commonly occurring in primary care which might be usefully referred to a psychologist, and also outline how they will probably be managed thereafter. The problem areas he identified were:

(a) Anxiety and stress

(b) Habit disorders

(c) Educational-occupational difficulties or decisions

(d) Interpersonal-social-marital problems

(e) Psychological adjustments to problems stemming from physical illness, or other significant life events, involving medical care.

Kincey suggested that psychologists should be located in Health Centres and advanced two theoretical advantages for this, firstly that this would facilitate earlier and therefore more effective intervention; and secondly that geographical proximity would ease contact with the patient's family, an aspect of behavioural treatment which was being investigated and advocated at the time.

Kincey also identified three possible problem areas in the proposed services. The first was the vexed question of clinical responsibility, he answered this by quoting the current BPS (1973) guidelines, that it is the responsibility of the referring doctor to ensure that the psychologist to whom he was to refer was properly qualified, and thereafter clinical responsibility for psychological treatment rests with the psychologist, whilst the doctor retained medical responsibility. A similar form of professional code was endorsed by the Trethowan Report and published in final version by the Clinical Division of the BPS in 1983 (BPS 1983). Kincey also outlined a number of different referral routes to the psychologist by which technical difficulties could be avoided.

The second potential difficulty Kincey foresaw was that patients seen in primary care might at some stage require in-patient treatment, his solution to this was that primary care psychologists should retain close links with hospital based serviced. The final potential problem Kincey anticipated was role confusion between clinical psychology and other professionals working in the community: nurses, psychiatrists, social workers and educational

psychologists. He answered this difficulty by acknowledging the inevitable blurring of roles in the area, and by pointing out that clinical psychologists would have to demonstrate that they could offer "techniques of proven value" in the community, exactly as they had done in hospital based services during the 1960s.

Prior to these two papers the only literature relating psychology to primary care concerns specific research topics (such as Doctor patient communications viz: Ley and Spelman 1967), however following them a number of papers appeared on various aspects of clinical work.

McAllister & Philip (1975) reported on the first year of a psychology service at Craigshill Health Centre in Livingstone, Scotland. During this time 94 cases were referred and the authors described the nature of problems referred and methods of treatment employed. Johnston (1978) similarly reported on her clinical work at Wallingford Community Hospital in London, she also gives some detailed case histories of Agoraphobic patients, and emphasised the comparatively short wait-list time for patients in primary care. Bhagat et al (1979) report in a similar vein, again describing a representative set of case histories. Kat (1978) describes the process of the psychologist finding the right role in a primary care team, and emphasises the need both for flexibility and patience on the part of the psychologist in this process. Liddell et al (1981) report on a method used to stimulate G.P. referrals to a psychology clinic.

These early developments in the field were reviewed by Kat (1979) and Burns (1982), Burns also lists 12 detailed advantages of primary care psychology services, these are listed in abridged form in Table 1.b. The

Table 1.b 12 Advantages to Primary Care Clinical Psychology Services (Abridged from Burns 1982, p.87-89).

In comparison to Hospital based services primary care psychology offers:-

1. Greater accessibility. Less travelling time and cost, less requirement for time off work, easier access for physically disabled or phobic patients.

2. Greater continuity of care and possibility of more frequent treatment sessions when necessary.

3. Greater possibility of liaising with G.P.s about drug management.

4. Less stigma for the patient.

5. Shorter wait-list time.

6. Facilitation of therapeutic and assessment approaches suitable for primary care.

7. Easier access to spouses and other family members.

8. Easier monitoring of therapeutic progress.

9. Reduced administrative and ambulance costs.

10. Less need for referral by G.P, to other agencies if effective intervention is made.

11. Increased knowledge among G.P.s and other primary care workers of psychological approach leading to an increased use of an other-than-illness model of behaviour disorders.

12. Possibilities for high job satisfaction among clinical psychologists because of diversity of problems referred and scope of role.

development of psychological services received formal encouragement from the Trethowan Report (1977), which recognised a need for: "increased participation by psychologists with General Practitioners in the Primary Care setting", and called for "in pilot studies with built-in full evaluations" (5.3.13).

Six separate groups of authors have now published surveys of different aspects of the area, these have investigated the incidence of suitable problems for a psychologist to treat in primary care, the G.P.s attitudes towards working with psychologists, and psychologists' attitudes towards working in primary care.

McPherson & Feldman (1977) report a study aimed at estimating the frequency of patients suitable for psychological treatment in primary care. McPherson observed the surgeries of 8 G.P.s working in two different practices in Birmingham, he sat in on 12 surgeries in one practice and 10 in the other, seeing a total of 366 patients. Following each consultation the G.P. and the psychologist independently rated the relevance of psychological factors to the patients presenting complaint, using a 4 point scale. The G.P.s rated 39 cases (11% of the sample) and the psychologists rated 30 cases (8%) as being "highly relevant". In a further part of the study McPherson conducted clinical interviews with 40 patients from the sample considered to be psychological cases by both the G.P. and psychologist. He estimated that 77% of this sub sample could benefit from psychological treatment, and a further 16% could also benefit but their problems were too mild to justify intervention, he judged a further 7% as being unlikely to receive help from psychological treatment, chiefly because their symptoms were arising out of social conditions. Overall McPherson & Feldman estimate that a psychologist

could make a useful contribution to the management of 8.4% of the study population, 31 out of 366 patients. Adjusting this figure for the well demonstrated phenomenon that approximately 30% of patients on a G.P.s list do not consult their Doctor during one year (viz: Ritchie et al 1980), this produces a corrected estimated that in any year approximately 5.9% of a practices' population would be suitable cases for psychological referral.

Davidson (1977) reported a survey among G.P.s working in Croydon on the kinds of working relationships that they would like to have with clinical psychologists. 76 G.P.s participated in the survey and 80% of these were in favour of direct access to psychologists for therapy services. These results were replicated by Dhillon (1980) with a G.P. sample in Oxfordshire. Reid and Smith (1982) report a study comparing attitudes towards working with psychologists between groups of 12 referring and 12 non-referring G.P.s They found that both groups rated liaison with psychologists positively, and conclude that failure to refer cases was caused by lack of information about the service and about clinical psychology in general, rather than by negative attitudes.

In a more detailed recent paper Eastman & McPherson (1982) also examined G.P.s attitudes towards working with psychologists. They randomly selected 40 G.P.s from a single health authority in the West Midlands of England, 30 G.P.s agreed to participate in the survey. Eastman & McPerson then conducted a structured interview with these G.P.s covering five areas:

(a) G.P.s perceptions of psychological problems and their prevalence

(b) The types of psychological problem presented, and the use of treatment resources

(c) The types and sources of skills used by G.P.s to treat psychological problems

(d) The actual and preferred working mode of G.P.s, together with an evaluation of the relative importance to general practice of the contributions available from a variety of health care professionals

(e) G.P.s perceptions of clinical psychologists and their involvement in general practice.

The answers to the first three question areas confirmed the literature on psychological problems in primary care reviewed in section 1.1 above. Eastman & McPherson's subjects estimated that 19% of their consultations concerned mainly psychological problems, but they only referred 11% of these on to specialists. Only 13% of the sample believed that their initial medical training had even equipped them "adequately" to deal with such problems. They employed a variety of largely informal management techniques plus, in 80% of cases, psychotropic medication. 87% of the G.P.s wished to make direct referrals to psychologists and their chief interest in liaison was for psychologists to take on therapy cases. However clinical psychologists were only rated eighth "most useful" out of a selection of professional groups also involved in primary care. This list also included occupations such as health visitor, physiotherapist and dietician, so the rating was not restricted to the concept of "most useful in assisting in the management of psychological problems" and is therefore of little value. 57% of G.P.s wished to have the psychologist working on their own premises, and only 12% would wish to receive advice from the psychologist on patient management.

In summary Eastman & McPherson found from a detailed evaluation of G.P.s attitudes towards psychologists that almost all of their subjects wished to refer therapy cases directly, but only a minority were interested in acquiring skills from the psychologist, just over half of the sample wished to have the psychologists located in their practice.

Broadhurst (1977) surveyed both attitudes about, and practice in, working in primary care among clinical psychologists. She found that 52% of her respondents, approximately 1 in 7 of all qualified psychologists in the U.K. at that time, were working directly with G.P.s. Generally she found that psychologists were enthusiastic about this new development, had been well received by G.P.s and had not experienced any inter or intra professional difficulties.

In summary, during the 1970s psychologists and G.P.s gradually developed closer clinical links, this development was specifically recommended by the Trethowan Report. Surveys reported the existence of a suitable body of patients in primary care, and also positive attitudes among both G.P.s and psychologists towards the new services. A number of descriptive papers appeared, outlining service developments and giving representative case histories.

1.4 UNCONTROLLED EVALUATIONS OF PSYCHOLOGICAL TREATMENTS IN PRIMARY CARE

At present there are 8 papers in the U.K. literature reporting various types of uncontrolled evaluations of psychological treatments in primary care. 6 of these papers concern clinical psychologists and 3 deal

with lay-counsellors. Research on the psychologist's role will be reported first.

Koch (1979) reported on 30 patients treated at a University teaching practice in Leicester, he found that the G.P. consultation rate dropped from an average of 9.27 visits during the year prior to treatment to an average of 5.46 visits for the year post treatment. The number of repeat prescriptions for these two periods also dropped from 3.03 to 1.93. Treatment thus produced a 50% drop in G.P. attendance rate, and a 30% drop in the number of prescriptions issued. Koch classified consultations into 4 classes: advice only, psychotropic prescription, non-psychotropic prescription and mixed prescription, and demonstrated that the reduction in attendance rate resulted from significant reductions in the first two types of consultation.

Ives (1979) also used consultation rate and drug usage as sole outcome measures in a study conducted in two group practices in Sheffield. He reports consultation rate during the 3 month periods pre and post treatment and the number of prescriptions issued during these periods, for a group of 109 patients. Consultation rate dropped by 36% from a mean of 3.53 pre treatment to 2.26 following treatment, and the number of prescriptions issued dropped by 50% from 1.88 to 0.94. Ives also gives one year follow-up data on 49 patients, showing that these changes were maintained.

Clark (1979) describes 42 consecutive cases referred to him by G.P.s in the north of Scotland, and also presents global outcome ratings derived from a combination of the therapists' and the patients' self rating. 18 cases were referred only for assessment, of the 24 treatment cases he rated 12 (50%)

as showing "great improvement", 9 (37.5%) as showing "slight improvement", and 3 (12.5%) as "no change".

Liddell et al (1982) report a brief satisfaction survey among 32 London G.P.s who had referred cases to a primary care service, 18 (56%) of subjects responded. The G.P.s were asked to comment on reporting by the psychologist at 3 phases of treatment, admission, progress and follow-up, and to comment generally on the service. The authors then classified the comments as positive or negative and present them in percentages. 66% of G.P.s commented positively on the new service, 17% adversely and a further 17% made no comment. Reid & Kahn (1983) report that, using therapist ratings of outcome alone, 73% of patients who attended for treatment either recovered totally or partially, however over one third of the referrals failed to attend for treatment. Reid & Kahn also report some data from a survey of 12 referring G.P.s, however this does not include G.P. evaluations of outcome.

The 3 uncontrolled studies on the work of lay counsellors in primary care will now be described. Anderson & Hasler (1979) report on patient satisfaction and G.P. satisfaction with the work of one lay counsellor in a health centre, they also report consultation rate and drug usage data. The first 80 patients referred to the counsellor were sent a 7 item "personal development" questionnaire, 55 replied. 63% of respondents rated themselves as having improved in "the way you feel about yourself", 35% rated no change on this item. In answer to the question: "do you feel more capable of dealing with your change in mood?", 71% felt that they were and 24% noted no difference. There was a similar response to the question: "Has there been a change in the way you feel about your present situation?". 43 patients said that they would use a counselling service again, and 46 patients said they

would recommend counselling to their relatives or friends. When evaluating the meaning of these patients' ratings, it should be remembered that 31% of the sample had not returned their questionnaires, therefore using a "worse case" estimate around half of the patients felt that they had been helped by the service and were generally satisfied. Anderson & Hasler report that the G.P.s using the service felt that the majority of their patients who had received counselling had benefitted, but they do not present any data on this, they also report that psychotropic drug usage was reduced but again do not give data on this. They do report that consultation rates for the 3 months pre and post treatment fell from 3.3 to 1.1 for the 55 questionnaire respondents. It is not clear from their report what types of problem were being dealt with by the counsellor.

Waydenfeld & Waydenfeld (1980) report a more extensive study in 9 London general practices, involving 35 G.P.s, 9 counsellors and 99 patients. They produce a detailed breakdown of patients' problems and from this it is apparent that the sample was biased towards marital and relationship problems in contrast to the types of problem dealt with in this study (see Chapter 4). Waydenfeld & Waydenfeld report a 31% reduction in consultation rates, from a mean of 4.5 to 3.1, between the 6 months pre and post treatment. They also report large reductions in attendance rates for spouses nd children (3.8 to 0.4, and 4.4 to 0.8 for same periods respectively). These differences are clearly highly statistically significant although the authors do not employ statistical tests. Psychotropic prescriptions fell by 30% and for other drugs by 48% between the same two periods. The authors also report G.P.s, counsellors and patients assessments of the effectiveness of counselling. G.P.s rated 32% as "very much improved", 56% as "somewhat improved" and 11% as

unchanged, the counsellor's own assessments were very similar to this. Only 48 of the 99 patients returned an assessment rating, 97% of these rated themselves as being helped to various degrees by their course of counselling.

The third evaluation of counselling in primary care is a brief report by Martin & Mitchell (1983). They report only patient self rating data from a sample of 60 cases from which there were 42 respondents, 39 of these reported their counselling as being "useful" or "very useful". However the average number of sessions per case in this study was only 2.3, so it appears that brief crisis-intervention counselling was being offered rather than a course of treatment aimed at symptom or problem removal.

To summarise this section, of the five uncontrolled studies on the work of the clinical psychologist in primary care two Koch, (1979) and Ives (1979), have reported reductions of one third to a half in consultation rate and psychotropic prescribing following treatment. Clark (1979) reported that 88% of a small sample of cases had improved greatly or significantly in the psychologist's opinion following treatment, Reid & Kahn (1983) report similar outcomes. Liddell et al (1982) report that 66% of G.P.s replying to a satisfaction survey had positive views about the service.

Two of the three studies reporting on counselling in general practice have reported similarly sized reductions in consultations and drug usage. All three surveys also report high levels of patient satisfaction with treatment, and that a minimum of two thirds of patients responding to questionnaire follow-up felt that they had been helped by counselling. In the larger study, Waydenfeld & Waydenfeld (1980) G.P.s rated 88% of cases as having improved to various degrees after counselling. However it is

not possible from the descriptions provided to evaluate the comparability or disparity of the patients in these 3 studies with the patient samples in published evaluations of treatment by clinical psychologists, or to the sample in this study. Waydenfeld & Waydenfeld do report a breakdown of problems from which it appears that marital relationship difficulties were far commoner in their sample than in this study. Clearly this question can only be properly tested by research comparing a primary care psychology service to a primary care counselling service, as yet there are no studies of this nature in the literature.

1.5 CONTROLLED EVALUATIONS OF PSYCHOLOGICAL TREATMENTS IN PRIMARY CARE.

At present there are 7 published U.K. controlled evaluations of psychological treatment in primary care, five of these studies involve clinical psychologists, one social workers and one G.P.s themselves using a problem-orientated counselling approach. The research involving psychologists will be reviewed first.

1.5.1 Psychologist Treatment

Earll & Kincey (1982) report a comparison of behaviour therapy versus G.P. management alone with a mixed group of 42 patients, 23 in the treatment group and 19 in the control group. Patients were allocated to the two groups at random by the G.P. prior to referral. The authors employed three types of outcome measures, firstly, an interview assessment with the second author 7 months after entry to the study at which the DSSI/SAD scale (a measure of current level of emotional distress) (Bedford et al 1976), a global life satisfaction measure and a locus of control scale were all completed by the

patient. Secondly consultation rate and hospital out-patient attendance rate during treatment were gathered (for the control group this was during the mean length of treatment for the therapy group: 16.3 weeks), and consultation rates were also gathered for the following 3 months to the interview. The data on the numbers of psychotropic and other prescriptions issued were also obtained for the same two periods.

There were significant differences between the two groups on only one of these measures, treatment group patients received significantly fewer psychotropic prescriptions than controls during treatment, but increased their drug usage following discharge so that there was no difference between the groups at follow up. This study has however, a number of serious methodological flaws in each of the types of evaluation used. Firstly the absence of pre-treatment assessment means that it is impossible to tell if the groups were matched on the scales employed, as will be seen in Chapter 8 below a similar randomisation procedure was used for the controlled study in this thesis without achieving proper matching. Secondly, pre-treatment consultation rates are not reported so any changes pre to post treatment, which have been reported in uncontrolled studies, cannot be assessed. Thirdly drug-usage changes are reported only using a crude measure of number of prescriptions issued during the period studied, this is clearly very insensitive to change as alterations in drug usage such as reduction in dosage strength or reduction in number of drugs per prescription would be ignored. For these reasons the negative results of Earll & Kincey's study should be treated with great caution, and their work certainly warrants replication using an improved design.

Cormack & Sinnott (1983) evaluate a psychological group treatment programme as a method of aiding benzodiazepine withdrawal. They selected a group of 50 patients who had been taking benzodiazepines continually for one year, 34 of whom were interviewed and 11 interviewed patients eventually attended for more than one session of group therapy. 42 patients were followed up over one year from their initial invitation to join the study, five of the 11 treatment patients were successful in reducing their medication (defined as receiving 2 or less prescriptions per year), and 17 of the 31 no-treatment cases achieved the same criteria. There was thus a similar success rate with or without treatment. Cormack & Sinnott therefore conclude that there were no significant differences in outcome between attending for group therapy and the patient simply receiving a letter advising them to reduce their medication. One interesting finding noted by the authors was that group therapy patients who reduced medication tended to be younger than group therapy patients who remained on the same medication, however there was no correlation between the length of time on drugs and ability to reduce them. This study again has a number of serious methodological shortcomings which make it difficult to draw any conclusions from it. First, and most important, the group treatment patients were self selected and therefore may have been more or less severe and chronic than control patients, the two groups may also have had different types of problems. Second, the only outcome measure used is drug usage, and this is again presented in the crude form of number of prescriptions. Changes in number of prescriptions are also not presented in a raw form but a curious convention is adopted where receiving 2 or less prescriptions per year is regarded as a treatment success, whilst receiving more prescriptions than this is a treatment failure.

Giblin & Clift (1983) report a better designed study evaluating psychological methods to aid hypnotic withdrawal in a middle-aged to elderly population. 20 patients were randomly assigned to a treatment or control group, all subjects were interviewed by a psychologist and then admitted to the trial. Pre treatment measures of dosage of drugs taken and estimated sleep latency were then recorded for one month, these measures were continued throughout the study. Following this baseline period all patients were asked to stop medication, and the therapy group patients were given a treatment package comprising relaxation, information and general advice about their sleep habits. This phase of the study lasted 4 weeks, following which there were follow ups at 12, 16 and 20 weeks. Treatment group patients were far more successful at stopping hypnotics than controls. At last follow up 20 weeks after admission 2 of the former group and 8 of the latter were taking hypnotics nightly, and 6 treatment patients in comparison to 1 control patient had taken no medication during the last month of the study. These differences between groups were highly statistically significant. In contrast there were no differences between the two groups at follow up in estimated sleep latency times, or in sleep refreshment ratings made in the mornings. Giblin & Clift's study is methodologically sound, and can be taken as preliminary evidence that psychological treatment aids hypnotic withdrawal whilst detailed self-reports alone do not. However the study does not test the value of the specific techniques used versus alternative techniques or an attention-control group, and therefore requires replication with the inclusion of such controls. More practically from the service delivery point of view the authors suggest that the treatment package they employed could have been administered by G.P.s, and a study comparing psychologists' treatment to brief G.P. treatment to no treatment on this topic would therefore be very interesting.

Freeman & Button (1984) report a survey of consultation rate and psychotropic drug usage among patients with psychosocial problems in a health centre population. By using a computerized record system these two variables were plotted for each year of a six year period for all patients who had at least one "psychosocial encounter" (ie: mainly psychological consultation) during this time. This procedure revealed a cohort of 1377 patients, 520 males and 857 females. Four general trends emerged when this data was studied. Firstly, the frequency of psychosocial encounters reduced by 42% over the six year period, this phenomenon being particularly marked among males. Secondly, the total consultation rate also fell, by 21%. Thirdly, the number of consultations for which psychotropic drugs were recorded (repeat prescriptions were not recorded) fell by 47%. Finally psychosocial consultations tended to cluster in a highly significant manner, from this finding the authors conclude that psychological problems follow a remitting and relapsing course.

Freeman & Button report that the 87 cases referred to the psychologist during this period all had high psychosocial consultation rates, they also report that following treatment, three quarters of these patients reduced both their consultation rate and psychotropic drug usage. Unfortunately the authors do not produce any data on this psychological treatment sample, and they cannot therefore carry out any controlled statistical comparisons between patients who had received psychological treatment and those who had not. Freeman & Button conclude:

> "It may be difficult to interpret reductions in consulting and prescribing rates after referral to a psychologist or another therapist unless contemporary trends for the whole practice are

> known. Furthermore, we suggest that the natural history of psychological and social problems is one of crisis and resolution in the majority of patients although in some patients, particularly women, there may be a more chronic course and this group is likely to demand much consulting time over the years." (Ibid p.379).

They further conclude that: "no benefit has been demonstrated from individual therapy by clinical psychologists", and suggest that a training role would be more appropriate for psychologists than a therapeutic one. This conclusion is unwarranted from the report for three reasons. Firstly, as described above, Freeman & Button do not report statistical comparisons between treated and untreated patients on the two outcome measures they employ. Secondly they only use indirect measures of change, consultation rate and drug consumption, rather than measuring symptoms or problems directly. Thirdly one of their measures, drug usage, is unreliable as it does not include repeat prescriptions, it is quite possible for example that the volume of repeat prescriptions for psychotropics increased during their study, this would have been undetected using their methodology.

The fifth and sixth controlled studies of psychologist treatments in primary care are Blackburn et al's (1981) and Teasdale et al's (1984) comparisons of cognitive and drug therapies of depression. Both groups of researchers reports that cognitive therapy was significantly more effective than anti-depressant medication on both patient self-ratings and assessor's ratings. Teasdale et al report a three month follow up by which time the drug group had caught up with the cognitive therapy patients in improvement. Blackburn et al do not report a follow up, but Blackburn & Bishop (1983) do report a detailed analysis of changes in cognition during the different methods of treatment from the earlier trial, they note the patients who do not

respond to cognitive therapy alone within four weeks will have a poor prognosis and suggest that in such cases the treatment approach should be switched to combined drug and cognitive therapy.

In summary, of the six U.K. controlled trials of psychologist conducted treatments in primary care, the three studies on specific problems and using problem related measures (Giblin & Clift 1983: insomnia. Blackburn et al 1981, Teasdale et al 1984: depression) have all reported psychological treatment to be significantly more effective than either drug treatment or, in Giblin & Clift's study, self monitoring and simple advice to stop medication. The other three studies (Earll & Kincey 1982, Cormack & Sinnott 1983, Freeman & Button 1984) have all used unselected patients and therefore did not employ problem specific measures. All three studies have major methodological flaws described in detail above, Earll & Kincey found no statistical differences between a treatment and a waiting list control group, the other two studies do not employ statistical methods.

1.5.2 Psychological treatment conducted by other professionals

There are at present two controlled studies in the U.K. literature evaluating psychological treatment methods used by other professionals in primary care.

Cooper et al (1975) compared 92 patients receiving treatment from a social worker in a London practice to a control group of 97 patients from a neighbouring practice. The chief problems seen were depression and anxiety, which comprised 49% and 26% of the sample respectively. Two types of outcome measures were used, firstly an independent psychiatrist assessor's ratings of

psychiatric status and social adjustment at admission and one year later were taken, secondly the patients' drug usage, consultation rate and referral rate to other specialists during the study year was obtained. The experimental group were significantly better at reassessment on both types of assessor's rating, they also took significantly less medication during the year and were less likely to be referred to other specialist agencies. Cooper et al do not report how long individual patients were treated by the social worker, so it is unclear if the reassessment of one year is a simple outcome measure, following one year's treatment, or is a true follow up some months after discharge. Aside from this problem their study is methodologically among the best in the literature, as it employs external assessors, multiple outcome measures, has a well matched control group and a large number of cases.

Catalan et al (1984a and b) report a detailed study of the efficacy of problem orientated counselling by G.P.s versus psychotropics in the treatment of minor psychological disorders, chiefly anxiety and depression. 91 patients were randomly allocated to two groups and completed self ratings at admission, one month later and seven months later. A third of each group were also assessed blind by a research psychiatrist at admission and one month, and the whole sample was assessed at seven months. The two groups of patients received similar amounts of consultation time, and in fact the only difference in management between them, apart from prescribing drugs, was that both G.P.s and patients in the non-drug group recorded more "advice on coping" being given during consultations. The main finding of the study was that prescribing made no impact on the patients' symptoms either at one month or at seven months. Non-drug patients also did not increase their consumption of other drugs (viz: alcohol, tobacco), nor did they increase their demands upon G.P.s time. An important aspect of this study is that all admissions were

"new" cases in the sense that although they might have had a history of psychological problems they had neither presented with such a problem nor received a prescription for psychotropics during the previous three months. In a further study of prognostic factors (Catalan et al 1984b) the authors found that patients from both groups more likely to receive medication from one to seven months had higher initial anxiety scores, and poor scores for psychiatric and social adjustment.

In summary the two controlled studies of psychological treatment methods by other professionals in primary care have both reported significant results of the experimental treatment over the regular service offered by G.P.s. Both studies have employed large groups of patients and are methodologically sound.

1.6 THE ROLE OF THE CLINICAL PSYCHOLOGIST IN PRIMARY CARE

1.6.1 Criticisms of an individual therapist role

The conventional role for the clinical psychologist which has developed in this new setting is undoubtedly the individual or group treatment approach, described in the various reports reviewed in sections 1.3 and 1.4 above. However three separate psychologists have suggested that this role is not the most appropriate one. Their arguments will be discussed in turn.

Hood (1979) in an article entitled "Clinical Psychology and Primary Care: a Plea for Restraint" writes: "the most basic and unsubstantiated assumption is that there is a need for clinical psychology services which can be most effectively and efficiently provided by someone working at the primary

care level" (Ibid p.422). He goes on to argue that direct referrals are not an efficient use of limited manpower, and that such service provision creates expectations amongst G.P.s which cannot be met by psychologists. In the main section of his paper, he argues that primary care is an entirely different type of health care from hospital care, and therefore psychology services in this setting should also take a different form from traditional hospital models. Hood suggests three lines that such an alternative service should take, firstly training and supporting lay-counsellors and stimulating self help groups, secondly preventive work and thirdly training members of the psychology team in psychological skills and awareness. He does see a need for direct psychological treatment of selected problems which: "put a high level of demand on primary care resources, whether in manpower, time, medication costs, and so on." (Ibid p.43), and for a careful evaluation of the cost effectiveness of such intervention.

McPherson (1981) in a long paper reviews the literature on psychology in primary care under four evaluative headings: advantages for patients, advantages for the N.H.S., advantages for G.P.s and advantages for psychologists themselves. His arguments will be described in turn. Considering potential advantages to patients first, he suggests that the research literature (at the time of his writing the only controlled evaluative study was Earll & Kincey 1982) has not proven any significant benefit to patients from primary care psychology. McPherson goes on to point out that that psychologists could not reasonably meet the large volume of work generated by the numbers of patients with psychological problems in primary care. He also suggests a reverse argument to this, that working with psychologists might lead to G.P.s and other primary care staff being less ready and skilled to manage psychological problems themselves. McPherson further points to experience in the U.S.A. with community mental health,

where in spite of large spending programmes in the 1960s there was no evidence either of advantages to patients or of changes in service provision compared to traditional services when the programme was evaluated in the 1970s (Chu & Trotter 1974, Windle et al 1974). Rapaport (1977) described the community mental health movement as "innovation without change".

Secondly McPherson considers potential advantages to the N.H.S. by reviewing uncontrolled evaluations using cost related outcome measures (viz: Ives 1979, Koch 1979). Whilst acknowledging the complexity of attempting cost-benefit analysis in the mental health field (Chapman 1979), he suggests that the type of cost reductions psychologists could achieve as individual therapists would be minimal. Thirdly McPherson discusses potential advantages to G.P.s from primary care psychology. He suggests that the literature on G.P.s attitudes to working with psychologists is confused, and emphasises the need for exploratory research here using an unstructured format. He does acknowledge that the bulk of the evidence points towards G.P.s being interested in making direct referrals to psychologists, and being relatively less interested in either the psychologist acting as a consultant or in receiving training in psychology techniques themselves.

Fourthly McPherson considers the potential benefits to psychologists themselves from the new relationship, he notes that there is nothing written on this topic and suggests that the reason for the popularity of primary care work among psychologists is the congenial working environment, outside of large institutions and away from potential inter-disciplinary wrangles with Psychiatry. He concludes:

"As these advantages for psychologists are rarely directly referred to in the reports of those working in the area it is not possible to assess whether or not they have been achieved, though the continuing expressions of enthusiasm and desire for expansion, together with frequent references in job advertisements to opportunities for working in primary health care, suggest that psychologists are finding satisfaction in working in this setting. As acknowledged above it would be unreasonable to adopt the puritanical position that because psychologists are enjoying what they are doing they cannot be doing any good. Clinical psychologists, however, should be careful to avoid copying the better established professions and confusing improvements for the profession with improvements in the service it provides." (Ibid p.30).

From this analysis McPherson goes on to describe three possible roles: therapist, consultant, and researcher. He rejects the first except where either this role is necessary to establish contact and credibility, or as a method of developing new therapeutic strategies appropriate for primary care and for teaching to other professionals. He quotes Durlak's (1979) review of the failure to find significant differences in effectiveness of treatment conducted by professional and para-professional mental health workers, and argues that psychologists should be "giving skills away". McPherson divides the second role of consultant into the four categories defined by Caplan (1970), which range from consultations with an individual G.P. about a specific case to consulting on the setting up and evaluation of a mental health programme or research project in primary care. The final role McPherson identifies is for psychologists to pursue their own research

interests in the area, he suggests a number of possible topics which are at present under researched.

Spector (1984) reviews the evaluative literature on psychology in primary care critically, and concludes that there is: "flimsy evidence to justify such rapid expansion" (Ibid p.74). He goes on to outline the alternative types of role suggested by Hood & McPherson, but notes that there is a dearth of research, and no evaluative reports, on these new roles. The chief reason he identifies for this is: "unclear evidence as to which roles are desirable or valid and difficulties in the integration of psychological and medical practice" (Ibid p.75).

In summary, Hood (1979), McPherson (1981) and Spector (1984) have all advanced the same five arguments against psychologists working as individual therapists in primary care, these are:

1. The psychological morbidity pool in primary care is too large to be realistically dealt with by clinical psychologists alone.
2. Evaluative studies have failed to produce convincing evidence either of treatment effectiveness or of cost-effectiveness.
3. Other clinical areas where psychologists' skills are well proven (viz: mental handicap, rehabiliation) are under staffed. There is therefore little justification in allocating resources to a new area where services will be of doubtful value.
4. Primary care is a different model from hospital care, therefore psychologists should adopt a new model for their work in this setting.
5. G.P.s and psychologists may have different views about the role of the psychologist.

All three authors agree that instead clinical psychologists should develop roles as consultants, teachers, and researchers and should also work to stimulate and support lay-counselling and self-help groups.

Whilst this author agrees that these new roles are potentially fruitful, indeed it would be premature to criticise them as none have yet been evaluated, in my view these criticisms of an individual therapy role are overstated. Hood, McPherson and Spector's five arguments will now be critically examined.

1.6.2 A reply to criticisms of an individual therapist's role

1. Size of morbidity pool

The claim that the number of cases in primary care who might potentially be referred to psychologists is relatively large is based on Shepherd et al's (1966) study, and the small survey conducted by McPherson & Felman (1977). However there are as yet few operating reports on primary care psychology services to confirm these figures. As the reader will see, in this study the number of referrals generated by G.P.s in a health district with a population of 129,000 could be managed by two full time psychologists, who are at the same time also servicing psychiatrist and general hospital referrals. Therefore the potential level of referrals may be overestimated, this point will be discussed further in the Discussion of Chapter 3.

A further implied relevant argument concerns the principle of denying services to a proportion of patients if finances are not available to offer such a service to all patients in need of treatment. If such a principle was employed throughout the NHS it would have radical implications, for example no

liver transplant operations would be conducted as only a proportion of referred patients do eventually receive surgery. Clearly therefore the argument against introducing a new method of treatment on the grounds that costs will not permit treatment of all suitable patients is not valid. The more appropriate criterion is whether the treatment under question is effective.

2. Results of evaluative studies

As described in section 1.5 above the three studies which have failed to find any differential effectiveness between psychologist treated and control groups have all had methodological flaws, two of the three studies do not report statistical comparisons between groups. The three better designed studies in the literature, all concentrating on one problem and using problem specific measures, have all found significant differences between treatment and G.P. management alone, and a fourth related study investigating the effects of social case work also found significant benefits from treatment one year after admission. The longest follow up in these positive studies is 3 months, and clearly further research is required to test the durability of the effects of treatment.

In conclusion therefore at present the weight of evidence from evaluative studies points towards treatment effectiveness, this of course would be predicted from the extensive research on the effectiveness of behavioural treatments in adult psychiatry.

3. Service needs of other clinical specialities

This argument is again a difficult one to sustain in the general health service context, as it implies that no new service should be developed

whilst there are gaps in already existing services. The logical implications of such an argument for health care where many specialities (viz: geriatric medicine) could justify enormous service needs and costs is that there will be no, or very rare, new service developments.

A second point relevant to this argument is that there is no published evidence that expenditure on primary care psychology services has led to withholding of funds from other specialities within psychology, if critics could assemble case histories of a number of such instances their argument would have more force, but would not necessarily be any more correct for the reason outlined above. In fact if jobs in primary care are as attractive to psychologists as McPherson (1981) suggests, they could well be used to attract applicants to less attractive specialities (Mulhall 1980) by splitting posts.

4. Different nature of primary care from secondary care

Whilst it is undeniably correct that G.P.s have a different contract of care with the patient from hospital workers (who to quote Kushlick out of context are "hit and run therapists"), that does not necessarily mean either that other professionals in the same setting should adopt the same type of contract or that they should necessarily abandon a time limited and problem orientated approach. Hood (1979), who principally argues this point, fails to justify his argument with either experimental or anecdotal evidence.

5. G.P.s attitudes to working with psychologists

The main conclusion of studies of G.P.s attitudes towards psychologists is that they wish psychologists to take on an individual therapy role. Indeed 88% of G.P.s in Eastman and McPherson's (1982) study expected

psycholgists to adopt this role. It is true that G.P.s may have some different views from psychologists about role, but these differences are over more diffuse roles such as consultant, rather than over a therapeutic role.

1.6.6 Role: Conclusions

In the author's opinion the argument against clinical psychologists working as individual therapists in primary care is not proven, and awaits further research. The goal of such research should be to identify types of patient who will respond in a long lasting way to psychological treatment, and to evaluate this treatment against alternative management strategies such as drug therapy, counselling by the G.P. or lay counselling.

The central issue to examine is whether the type of patients identified by Shepherd et al (1966) as receiving a poor standard of care from the NHS do in fact receive more effective care from contact with a psychology service.

McPherson (1981) argues that an individual therapy role can establish psychologists credentials with G.P.s, the study to be reported here demonstrates this. The author would not argue against the development of the other three roles (consultant, trainer, lay-counselling and self-help group stimulator and supporter), but suggests that these should firstly follow from an established individual treatment role, and thereafter should run in parallel to it. These points will be returned to in the final dicussion in Chapter 9.

1.7 SUMMARY AND CONCLUSIONS

Over the past 20 years the prevalence and nature of psychological problems among primary care attenders has been extensively investigated, and a large pool of minor psychiatric morbidity has been identified. One of the proposed solutions for providing better health care for these patients is for clinical psychologists to work in close liaison with G.P.s, and a number of uncontrolled evaluative reports of such services have been published. A small number of controlled outcome studies have also been published, reviewing these critically it is apparent that the better controlled studies have found significant treatment effects. Three authors have questioned the value of psychologists adopting an individual treatment role in primary care, their arguments were summarised and criticised. It is concluded that the whole topic of psychological treatment in primary care requires further careful research, with the goal of matching suitable patients to effective management techniques. This study, an evaluation of a new service set up in one health district, is a step towards that goal.

CHAPTER 2

AIMS OF THE STUDY AND METHODOLOGY

2.1 AIMS OF THE STUDY

This study was designed to meet a series of experimental aims which were derived from the literature reviewed in the last Chapter. These were:

1. To describe the use and development of a primary care clinical psychology service in a district where no psychology service for G.P.s had previously existed (Chapters 3 and 4).
2. To compare referrals made by G.P.s and psychiatrists to the service (Chapter 4).
3. To evaluate outcome for an uncontrolled sample using the following measures:
   (a) G.P. consultation rate
   (b) Drug usage
   (c) Patient self-rating
   (d) Therapist ratings
   (e) G.P. ratings
   (Chapters 5 & 6)
4. To relate patient variables to the outcome measures in order to identify prognostic signs (Chapters 5, 6 & 7).
5. To survey patient satisfaction with treatment (Chapter 6).
6. To survey G.P. satisfaction with the service (Chapter 7).
7. To conduct a controlled outcome study with the commonest problem referred by G.P.s (Chapter 8).

As the reader will note from the Chapter numbers in brackets the sequence in which these aims will be reported corresponds roughly with the order of Chapters. There will be a short discussion section at the end of each Chapter reviewing the evidence presented relevant to the aims under test, and a general review will be made in Chapter 9.

2.2 METHODOLOGY

A number of different types of evaluation were used in this study, these fell into 5 categories, psychologist ratings, patient self-ratings, G.P. ratings, medication usage and consultation rate data. These categories will be described in detail below.

2.2.1 Psychologist ratings

Three forms of psychologist ratings were used. Firstly at admission the psychologist specified the patient's problems from a list of 28 used (see section 4.2.1), each patient receiving up to 3 problem diagnoses ordered in terms of priority, and the severity of each problem then rated by the psychologist using a 0.5 point scale. The guidelines used for assigning ratings are shown in Table 2.a. Such ratings scales have been widely used in behaviour therapy outcome studies, and the particular form used was that employed by the Oxford group in a series of outcome trials on behavioural treatment for agoraphobia (Gelder et al 1973, Matthews et al 1976, Matthews et al 1977, Munby & Johnston 1980). This rating was then repeated at discharge. These problem ratings were totalled for some analyses, producing two measures: Admission Therapist Total Problem Score (ATOTPROB) and Discharge Therapist Total Problem Score (DTOTPROB).

Table 2a: Therapist problem rating scale guidelines.

Notes: This scale should cover both severity and frequency of the problem. Frequency refers to how often the problem occurs in the context in which it is set, not to absolute frequency. The scale refers to the patient's distress about the problem. When assigning a rating frequency and severity should be allowed to interact.

0	:	No problem
1	:	Very mild problem, occurs occasionally and does not greatly trouble patient
2	:	Mild problem, produces slight distress and is occurring regularly
3	:	Moderate problem, distresses patient and occurs frequently
4	:	Severe problem, causes serious distress and occurs in most relevant circumstances
5	:	Very severe problem, occurs with extreme associated distress in all relevant contexts.

Secondly at admission and discharge the psychologist rated the extent to which the patient was handicapped by his problems in each of four areas, work, family life, social life and sexual life, using a 0-3 point rating scale. Guidelines for judging these ratings were also drawn up and are shown in Table 2.b. Such ratings have again been widely used in descriptive studies concerning psychological problems and outcome studies of psychological treatments (Matthews et al 1976).

These two types of therapist rating cover the two main dimensions of psychological problems, severity of symptoms and the degree of interference in the patient's lifestyle caused by the problem. This system both permitted for some comparability when rating a heterogeneous selection of problems and also provided for flexible rating of each patient's specific difficulties.

Thirdly the psychologists classified each patient's discharge using an 11 category system, described in detail in Chapter 5. As two of the discharge categories were "discharged improved" and "discharged unimproved" this system functioned as a simple global outcome evaluation.

2.2.2 Patient self ratings

Three types of rating data were also gathered from the patients. Firstly a series of 100 patients seen between 1980 and 1981 completed a 0-5 severity rating scale for up to 3 problems at admission, discharge and at 6 month follow up. The form used is shown in Table 2.c, and was again based upon the scale used in the Oxford Treatment Trials.

Table 2b: Therapist handicap rating scale guidelines.

Notes: This scale covers the impact of the patient's problem in four areas of his life; work, family relationships, social life and sexual relationships. The score measures to what extent the patient's adjustment in this area of his life is hampered by the problem.

0 : No handicap, or problem irrelevant to this area, or unknown

1 : Some impairment caused by the problem

2 : Serious impairment: e.g. great discomfort at work or occasional days off as a result of the problem

3 : The problem is causing total disruption: e.g. preventing work, the patient has no social life etc.

Table 2c: Patient Problem Self-Rating Scale

Please rate how much you have been bothered by the following problems during the past month by circling one of the numbers on each scale:

No. 1: . . . . . .

0	1	2	3	4	5
Not at all	A little	Quite a lot	A lot	Severely	Extremely: could not be worse

Secondly the same group of patients were also given the 30 item General Health Questionnaire (Goldberg 1978). The GHQ 30 was derived from a structured interview and longer questionnaire, and is specifically designed as a screening tool for the detection of psychological problems in primary care. The questionnaire is sensitive to symptom changes and was therefore judged appropriate for use as an outcome measure. The cut off point recommended by Goldberg for psychiatric "caseness" is a score of 4 to 5 (Goldberg 1978).

Thirdly 6 months after discharge a series of patients was sent a follow up questionnaire. This comprised four questions, the first asked the patient to rate the extent to which he had been "helped" by treatment, on a four point scale, second specified the main problem for which he had received treatment and then asked him to rate the current status of his problem on a five point scale. The questionnaire also asked patients what medication, if any, they were now taking and finally asked the patient if he had any comments to make about his course of treatment.

2.2.3 G.P. ratings

General Practitioners who used the service were asked to contribute to evaluation in two ways. Firstly in mid 1981 they were sent a consumer satisfaction survey about the service, the format of this is described in detail in Chapter 7. Secondly in the same survey they were also asked to rate the progress in treatment of each of the patients they had referred, and also of the patients from their list referred by psychiatrists, using a simple 3 point scale. A proportion of these patients had completed the six months follow up period by this time, and the characteristics of these cases are discussed in detail in Chapter 7.

2.2.4 Drug usage

At admission to treatment the drug type and dosage was recorded for all the patients taking psychotropic medication (defined as all those substances listed in the central nervous system section of MIMS). At discharge the patient's medication regime was again recorded, and the same information was also gathered at follow up by asking both the G.P.s and the patients to report medication on the follow up questionnaires. Each patient's drug status at discharge and follow up was coded using a 6 point classification, which covered all possible patterns of medication usage:

0 = no drug at admission, discharge or follow up

1 = same drug or drugs

2 = increased dosage of same drug or drugs

3 = decreased dosage of same drug or drugs

4 = stopped drug or drugs

5 = changed drug or drugs

6 = started drug or drugs

When drug usage was coded at follow up this classification was related to drug status at admission not at discharge. So a patient who was taking no medication at admission, but had started medication by discharge and was taking the same drug dosage at follow up would be coded as 6,e.g. started drug.

2.2.5 Consultation rates

As discussed in the Introduction patients with psychological problems tended to consult their G.P.s more often than the general population, and this elevated consultation rate has been shown to drop following psychological or other treatment. Consultation rate data was therefore gathered in this study by writing to the G.P.s of patients who had received a course of treatment six months after discharge (at the same time as the patient was sent the follow up questionnaire) asking them to report the number of consultations during the 6 months prior to treatment, during the treatment period, and also for the 6 months following treatment. The G.P.s were asked to count all consultations both in their surgery and home visits regarding the patient's own health. The only exceptions to this were insurance company and other such medical examinations and ante-natal and post-natal visits. In this way all "illness-centred" consultations, both physical and mental, were recorded. Two further extra sets of consultation data were gathered. Firstly a one year follow up post treatment was conducted for a group of 49 patients from one Health Centre, Bridge of Allan. Secondly the consultation rates pre and post treatment of patients' spouses and children were gathered for a series of 23 cases.

2.3 SUMMARY: AIMS OF THE STUDY & METHODOLOGY

Seven aims of the study are defined, the testing of these corresponds roughly to the order of chapters. Five different types of evaluation measures are described.

CHAPTER 3

THE FORTH VALLEY HEALTH BOARD COMMUNITY PSYCHOLOGY SERVICE

3.1 AIMS OF THE SERVICE

In January 1979 the Forth Valley Health Board, in collaboration with the University of Stirling, established a three year research project involving the development and assessment of a community based clinical psychology service for the Stirling district of the Forth Valley. The service was set up with five aims:

1. To provide for the Stirling district of the Forth Valley Health Board a clinical psychology out-patient facility for assessment and treatment of behavioural problems, with particular emphasis on behavioural approaches to treatment.
2. To establish and develop the role of the psychologist in the primary care setting.
3. To develop the role of the psychologist in the University setting, in collaboration with the University Health Service and the University Student Counselling Service.
4. To report on the viability of the above services and to suggest modifications of, and extensions to them.
5. To encourage joint research between psychologists, general practitioners, and psychiatrists.

Essentially the aim of the new service was to provide psychological assessment and treatment of physical, psychosomatic and behavioural disorders,

which either might not normally receive psychological treatment, or might be referred for psychiatric treatment where psychological treatment would be more appropriate.

3.2. ADMINISTRATION AND ORGANISATION OF THE SERVICE

A three-tier system was set up to administer the project. The clinical work of the service was made the responsibility of the clinic team, this comprised Dr. Pemberton, Consultant Psychiatrist, Dr. Simpson, General Practitioner, Dr. Gerver, Senior Lecturer in psychology, and Mr. Jerrom, Senior Clinical Psychologist. This team met regularly during the three year experimental period to liaise over cases, to discuss new referrals, and to review cases in treatment. The Health Board established a management group to monitor the financial and managerial aspects of the project, this committee comprised the four members of the clinic team and Dr. Mitchell, Specialist in Community Medicine and Mr. Denton, General Administrator. Finally overall administration of the project was the responsibility of a steering committee set up by the Health Board, comprising all of the members of the Project Management Group and Professor Barber, Professor of General Practice at Glasgow University as Chairman together with Dr. Clark, Consultant Psychologist, Highland Region. The steering committee met at four to six monthly intervals during the project.

At the start of the project two referral routes which general practitioners could use to the clinic were defined by the steering committee, these were:

1 Directly to the clinic team, in which case the referring general practitioner retained responsibility for any on-going medical treatment

2 Via the sector psychiatrist in which case the sector psychiatrist held responsibility for the patient

In both cases the clinical psychologist held full responsibility for any treatment he undertook in line with the accepted professional guidelines (BPS 1983).

In practice the majority of general practitioners referred directly to the psychologist from the start of the project, referrals via the psychiatrist accounting for no more than five cases per year.

3.3 SETTING UP THE SERVICE

A letter describing the experimental service and the code under which it was to operate was circulated to general practitioners and hospital practitioners working in the Health district in December 1978. A one day conference on the theme of "Psychological Treatments in Primary Care" was then held on the 4th February 1979 and all the general practitioners and hospital practitioners in the Health Board were invited. Professor Barber acted as Chairman for the conference and Professor Rachman, from the Maudsley Hospital London, gave an introductory lecture on "Psychology and General Medicine". Five clinical psychologists, including Mr. Jerrom, then spoke on specialist topics. During the spring of 1979, health centres and practices in the

Stirling district were circulated with further information about the clinic on an information card (see over).

G.P.s in the district showed considerable interest in the clinic and contacts were rapidly established between Mr. Jerrom and various practices. When six months had elapsed he was visiting six surgeries or Health Centres on a regular basis (there were 28 practices within the service's catchment area, based in 24 Health Centres or surgeries), and the average referral rate during the first six months of operation was 4.6 cases per week. The development of the service is discussed in detail in the next section.

3.4 SOURCE AND FLOW OF REFERRALS TO THE SERVICE

Table 3.a presents the total number of cases referred to the service during the three experimental years, 1979-1981, and also during the following two years, 1982 and 1983. The table shows that overall G.P.s referred 81% of the patients dealt with by the clinic, and the total number of cases referred by G.P.s increased each year whilst the proportion of cases referred by psychiatrists decreased each year. The average referral rate for the five year period is 4.9 cases per week.

Over the five year period studied a number of G.P.s left or retired and were replaced, some practices also took on new partners. The number of G.P.s working in the Health district increased by one in 1981 and again by one in 1982. Two practices split in 1981 increasing the number of practices in the district from 28 to 30. Table 3.b presents the number of individual G.P.s referring cases each year, and the number of practices referring patients. The table shows that from 1980 to 1982 the number of G.P.s using the service

FORTH VALLEY HEALTH BOARD :

UNIVERSITY OF STIRLING

Information About The

COMMUNITY CLINICAL PSYCHOLOGY SERVICE

Bridge of Allan Health Centre,
Fountain Road
Bridge of Allan- FK9 4EU

Tel: Bridge of Allan, 833401

Department of Psychology
University of Stirling
Stirling FK9 4LA

Tel: Stirling 3171

1. THE SERVICE

Forth Valley Health Board has set up a Community Clinical Psychology Service in Stirling District on an experimental basis for three years (i.e. January 1979 to December 1981). This has involved the appointment of a Senior Clinical Psychologist, Mr D. W. A. Jerrom, and a part-time Secretary. The service will be operated primarily by Mr Jerrom in co-operation with a team comprising Dr. Pemberton, Dr. Simpson and Dr. Gerver. The team will meet once weekly to discuss the cases in hand, Dr. Gerver will also see patients as part of the service on a sessional basis.

2 REFERRING PATIENTS

Referrals can be made from all doctors working in the District, and can also be made by the Community Nursing Service through the General Practitioner. It should be emphasised that the service is primarily intended for use by General Practitioners, and whenever a patient is referred via another route the G.P. will be kept fully informed. The General Medical Practitioner retains responsibility for patients.

The method of referring patients is to write to either Mr. Jerrom or Dr. Simpson at Bridge of Allan Health Centre. Mr. Jerrom will be visiting other Health Centres in order to see patients, however as the project secretary is based at Bridge of Allan, it will be most efficient if all requests, written or telephoned, are directed there initially. Domiciliary visits can be arranged where necessary.

3 SUITABLE PATIENTS

The service is appropriate for any patient who is either complaining of a purely psychological problem, or is suffering from a physical illness with a large psychological overlay. In practice this means:

A. **NEUROTIC DISORDERS:** particularly Anxiety states, Phobias, Obsessions and Insomnia.

B. **PSYCHOSOMATIC PROBLEMS:** examples being Tension Headaches, Migraine and Psychogenic Pain.

C. **HABIT DISORDERS:** including problems such as Smoking, Adult Enuresis and any compulsive behaviour.

D. **REHABILITATION:** where assessment and advice may be required following damage to the brain or central nervous system.

E. **CHILD BEHAVIOUR PROBLEMS:** where these are of a comparatively mild nature; when severe they will be referred on to the specialist Child Psychology Service at Stirling Royal Infirmary.

We wish to emphasise that the above categories are only suggestions, and are by no means exhaustive. We welcome any referral that involves a psychological rather than a strictly medical problem.

4 ADVISORY ROLE

In addition to direct contact with patients for treatment purposes. advice on case management can also be provided. This would be appropriate for instance in a case of an epileptic or diabetic patient who repeatedly failed to comply with treatment. Where advice, rather than a referral, is required the doctor should telephone Bridge of Allan Health Centre.

5 EVALUATION

As the introduction of a community clinical psychology service is an experiment, the service will be evaluated in various ways, one of which will involve a survey of those who have referred patients to test their satisfaction with the service provided.

TEAM:

Dr D. Gerver, Senior Lecturer in Psychology
Mr D. W. A. Jerrom, Senior Clinical Psychologist
Dr D. A. Pemberton, Consultant Psychiatrist
Dr R. J. Simpson, General Practitioner

Mrs R. McDougall, Secretary

Table 3.a. Source and Number of Cases Referred 1979 to 1983

	1979		1980		1981		1982		1983		TOTAL	
		%		%		%		%		%		%
Stirling Health/ District G.P.s	156	65	184	82	193	83	219	85	278	88	1030	81
Sector Psychia-trists	66	27.5	39	17	32	14	31	12	24	8	192	15
SRI Doctors	12	5	1	0.5	6	2	6	2	14	4	39	3
Outside	6	2.5	1	0.5	2	1	2	1			11	1
Annual Total	240		225		233		258		316		1272	

Key: SRI = Stirling Royal Infirmary

Table 3.b Number of G.P.s and of Practices referring 1979 to 1983.

	N. G.P.s Referring	Out of	%	N. Practices Referring	Out of	%
1979	41	84	49%	17	28	61%
1980	50	84	60%	19	28	68%
1981	52	85	61%	24	30	80%
1982	53	86	62%	23	30	77%
1983	59	88	67%	28	30	93%

remained stable at between 60% and 62% of the G.P.s in the Health District, during the last year the proportion increased to 67%. A number of doctors referred in some years but not during other years so the total number of G.P.s using the service during the whole five year period of operation was much higher, overall 75 G.P.s referred cases, this being 87% of doctors working in the Health District at the end of the study period. The proportion of practices using the service in any one year increased from 61% in 1979 to 93% in 1983. Over the entire period 28 practices referred patients, this figure representing 93% of the practices in the Health District. The two non-referring practices were both small rural practices some distance from Stirling, one being a single handed practice, and patients from both of these practices were referred to the service by the sector psychiatrist, so by the end of 1983 each practice in the Health District had had some contact with the Psychology Service.

3.5 INDIVIDUAL PRACTICE REFERRAL RATES

Table A in the Appendix (see page 216)presents the total number of patients referred from each practice per year for the years 1979 to 1982. Three practices, Bridge of Allan Health Centre, Viewfield Medical Centre, and Jago et al in Alloa, between them referred 53% of the total number of G.P. referred cases. Viewfield Medical Centre was the leading referral source in 1980 and 1982, whilst Bridge of Allan and Jago and partners referred the highest number of patients in 1979 and 1981 respectively. One other practice, the University Medical Centre, regularly referred more than 10 cases per year and referred 7% of the total sample. The remaining 40% of cases during this four year period were referred by 23 practices, the last five practices on the table between them referring 1% of the sample.

A number of factors from the literature on psychological problems in primary care may be contributing to the large inter-practice variance in referral rate during the study period, these are:

1) the prevalance rate of psychological problems in the practice
2) the G.P.s attitude to the psychology service
3) the G.P.s bias to psychological problems
4) the practice's referral rate to other sources
5) whether the psychologist visited the practice
6) the distance from the practice to the base of the service.
7) positive feedback factors
8) the social class composition of the practice

We will discuss each of these possible explanations in turn.

3.5.1. Prevalence Rates

Shepherd et al (1966) found large discrepancies in inter-practice prevalence rates for all psychiatric diagnoses ranging from 38 to 323 cases per 1000 with the mean prevalence rate being 140 per 1000. They calculate that 60% of this variance can be accounted for by random fluctuations, ecological and observer factors, the remainder being a true variance in morbidity. Thus one practice can contain three to four times as much psychiatric morbidity as another, a phenomenon frequently noted by G.P. trainees rotating around different practices. Shepherd et al (ibid) note that the prevalence for physical illnesses also varies significantly between practices, although these variations are not so great as those for psychiatric disorder.

It is concluded from this that part of the variance in referral rate to the Psychology Service may have been caused by real differences in the prevalence of psychological problems, unfortunately an empirical test of this hypothesis was beyond the scope of this research.

3.5.2. The G.P.s attitude to the psychology service

Clearly general practitioners who think that clinical psychologists can provide effective treatments will refer more cases. conversely G.P.s who are wary of referring cases to other professions will make less use of the service. G.P.s were asked directly about their attitude to the service in the satisfaction survey (see Chapter 7) and there was a tendency for the highest referring G.P.s to be most satisfied with the service.

Doctors' attitudes towards psychology services will be governed by their exposure to psychology both as medical students and post-qualification, and will also be more immediately controlled by how the individual patients they refer fare with psychological treatment. On a local basis personalities will also have been important, and different G.P.s attitudes towards the four principals involved in the service (Drs. Pemberton, Simpson and Gerver and Mr. Jerrom) will have influenced their referral behaviour.

3.5.3. The G.P.s' bias towards psychological problems

Bias is here used in the sense employed by Goldberg and Huxley (1980), meaning awareness and sensitivity of detection of psychiatric "caseness". The existence of such bias among G.P.s is well established, Goldberg and Huxley (ibid) reviewed five studies reporting "a very great

variation between individual physicians in the rates at which they report for psychiatric illness" (ibid p. 61). Research has also demonstrated the obvious implication of this that a G.P. who diagnoses psychological problems more frequently will tend to have a higher referral rate to psychiatric services (Shepherd et al 1966, Goldberg and Huxley 1980). Two further factors are also involved, the first being the extent to which the G.P. wishes to retain the care of patients with emotional problems, Shepherd et al (ibid) report that the two major reasons given by G.P.s for non-referral were either that the patients would dislike referral or that the management of emotional problems is the family doctor's responsibility. Secondly the G.P.'sympathy towards patients with emotional problems is also important, although it would appear reasonable to predict this would co-vary with bias it is possible that an individual doctor might diagnose psychological problems accurately but decide not to refer because he did not consider such cases worthy of specialist attention.

It is concluded from the above that the individual G.P.s who referred more cases were probably more sensitive to the uncovering and diagnosis of psychological problems, more prepared to seek outside specialist help with such cases and generally more sympathetic towards this type of patient. Each of these factors will also become part of an individual G.P.'s reputation among the patients on the practice list and he will thus, wittingly or unwittingly, tend to attract more psychological consultations. This phenomenon, that a disproportionate amount of the practice patients with psychological problems were consulting one partner, was very marked in several of the practices visited in this study and conversely G.P.s can deter psychological consultations by their reputation.

3.5.4. Referral Rates to Other Sources

It is a reasonable hypothesis that those practices who referred more to the local psychiatric service would also be more likely to refer to the psychology service. Unfortunately new referral figures by practice are not gathered by the local psychiatric service so it was not possible to test this hypothesis.

Many studies have shown that urban G.P.s refer more patients to psychiatrists than G.P.s in rural practices (Goldberg and Huxley 1980 - note 2: p 114). This was also our experience as overall the practice referral rate tended to drop as the distance increased from the base of the service, the mean distance from base to the first ten practices in Table A is 3.5 miles, while the same figure for the bottom ten practices is 13.3 miles. If referrals to a psychology service are similar to psychiatric referrals in the respect of distance it is possible that the usage of the two services will co-vary in other ways, however this is speculative and requires further investigation.

3.5.5. Whether the psychologist visited the practice

Inspection of Table A (see Appendix p.216)shows that the fourth to the tenth practice on the list, in descending order of the number of patients referred, contributed 20% of the total sample. Ten practices thus referred 83% of the sample, and it is notable that the psychologist visited nine of these practices regularly to run clinics. In contrast only seven of the remaining seventeen practices in Table A were visited regularly. The setting up of a psychology clinic in a practice came about in one of two ways, either

the G.P.s invited the psychologist to start visiting the practice, this occurred particularly in 1979, or a number of referrals were received from a particular practice and the psychologist then approached the G.P.s suggesting that he should start to visit. Thus the introduction of a new clinic generally followed demand, rather than being planned with a purpose of stimulating demand. However starting regular visits to a practice often raised the referral rate, an example of this being a small two-handed practice in Stirling whose referral rate increased from 6 to 14 cases per year after a clinic was started.

3.5.6. Distance from the Practice to the Base of the Service

As described in 3.5.4 above, there was a marked relationship between referral rate and distance of the referring doctor's practice from the base of the service at Bridge of Allan. This phenomenon is well established in the literature on the psychiatric referring habits of G.P.s

3.5.7. Positive Feedback Factors

Referring a case to the psychology service can have a positive feedback upon referring behaviour for the individual G.P. and for the practice as a whole. Firstly the procedure, particularly if the case has a good outcome, will tend to sensitise the G.P. to the diagnosis of similar problems. This phenomenon was noticeable with referrals of agoraphobics, a condition which in this sample was often mis-diagnosed by G.P.s,frequently individual G.P.s initially referred agoraphobics as anxiety states but later referred other patients as suffering from agoraphobia. Secondly it was noticeable that those G.P.s who referred more patients tended to refer a more

diverse selection of problems than those G.P.s who referred fewer cases, extreme examples of the latter being one G.P. who referred five cases all of which were marital or sexual problems and another G.P. who referred six cases all of which were of chronic pain. Presumably those G.P.s who referred more cases noted similarities between aspects of earlier referred cases when making the referrals, and in this way loosened their referral criteria. They also obviously became confident that the psychology service could deal appropriately with a wider selection of problems.

Positive feedback can also operate between partners in the same practice, if one partner started to refer cases his partners often tended to begin referring also. None of the practices contained a high referring and a non-referring partner, although there were several practices where all of the partners referred at a low rate.

These postulated and observed positive feedback mechanisms can partly explain the growth in referrals from certain practices, simply stated the likelihood of further referrals increases considerably as the total number of cases referred by a G.P. or by his practice increases.

3.5.8 Social-Class Composition of the Practice

The extensive literature on social class and mental illness has produced confused findings (Goldberg & Huxley 1980), partly because of the inadequacies of the standard systems for categorising social classes, whether by occupation, education or income (Bland 1979). However, Goldberg & Huxley draw two general conclusions from the literature, firstly there is a positive correlation between lower social class and the incidence of mental illness,

but secondly there is a positive relationship between higher levels of education and the likelihood of psychiatric referral (Hurry et al 1980, Weissman and Myers 1978). This latter effect does not appear to be caused by the G.P.s threshold for diagnosis, as Marks et al (1979) found that middle class depressed patients were less likely to have their illness detected by their G.P., but is probably caused by better educated patients being more likely to request psychiatric, or other specialist medical, referral themselves (Fink et al 1970).

Relating these two trends to the data under consideration here is difficult. The best generalisation that can be drawn is that practices which have skewed lists, either with an excess of high or low social class cases, will generate more referrals, whilst practices whose social class distribution is closer to that of the national population should have comparatively lower referral rates. Unfortunately this proposition cannot be properly tested here as there is no social class breakdown available for the different practices using the service.

3.5.9. Characteristics of Leading Referring Practices

Before summarising these factors possibly accounting for inter-practice variations we will discuss the three leading referral practices in detail, to test the extent to which they show evidence of the factors discussed above.

Bridge of Allan Health Centre, which referred the highest number of patients overall, was the base of the service for the first three years of operation, and one of the partners was instrumental in the setting up and

management of the service. This G.P., Dr. Simpson, also individually referred the highest number of patients (see Section 3.7 below). The referral rate from this practice decreased from 1979 to 1981 and then remained at the same level in 1982, this reduced referral rate for Bridge of Allan Health Centre of approximately 2 cases per month is probably a true reflection of the continuing incidence of appropriate referrals in the practice, and the very high referral rate in 1979 clearly involved a backlog of chronic cases. The attitude of the other two partners in the practice was also important, both were well disposed towards the new venture and welcomed the presence of the psychologist and his secretary in the practice, the junior of the two partners was also "psychologically minded" (Goldberg and Huxley 1980: P61) and ran third in the individual totals.

The second ranking practice, Viewfield Medical Centre, is a large urban practice with six partners, two of whom joined the practice to replace partners who retired during the course of the project. The psychologist started to visit the practice once per week in mid-1979 and in the following year the practice became the leading referral source. During the whole period each of the partners referred more than 20 cases, and referrals from this practice tended to be more equally distributed between the partners than at Bridge of Allan or at the leading Alloa practice. Jago and partners is a five-handed practice sited in a large health centre also housing two smaller practices. The psychologist started to visit Alloa Health Centre for a weekly clinic from the start of the project, and Jago and partners were a major referral source from 1979 increasing their referral rate yearly to 40 cases in 1982. There were considerable variations between the five partners in referral habits, two partners referring 5 and 8 cases in the four year period whilst two others referred 33 and 53 cases during the same period, the three

younger G.P.s referred 90% of the practice's cases.

In summary these three practices appear to have become major users of the service for three reasons. Firstly the psychologist was based in one practice, and visited the surgeries of the other two practices on a weekly basis from the early stages of the project. Secondly all three practices contained partners who were both sensitive to psychological cases and interested in psychological treatment. Thirdly two of the practices have the largest lists in the Health District therefore on a simple numerical basis could be expected to be frequent users of the service.

3.5.10 Summary of Causes of Inter-Practice Variations in Referral Rates

A number of possible explanations for the large inter-practice differences in referral rate reported here have been discussed, in the absence of relevant empirical data several of these were speculative. From the data presented in this section however three objective conclusions can be drawn:

1) Practices closer to the base of the service were more likely to refer, and urban practices were more likely to refer than rural ones.

2) Practices visited regularly by the psychologist referred more cases.

3) If one G.P. within a practice referred a number of cases his colleagues would be more likely to refer in future.

Four further hypotheses can be made to explain the variable referral rates but unfortunately cannot be tested in this study. The practices referring the largest N of cases:

Table 3.c Number of cases referred as a percentage of list size - 3 leading practices.

	Cumulative % of list ref. 1979 to 1982	% of list ref. in highest yr.
Bridge of Allan	2.6%	1.0% (1979)
Viewfield Medical Centre	0.9%	0.3% (1980)
Alloa: J.et.al.	1.1%	0.3% (1981)

1) Contained a higher prevalence rate of psychological problems

2) Had one or more partners who both had a "bias" towards psychological problems

3) Tended to refer more cases to the psychiatric services.

4) Had a skewed social class structure

Possible ways of obtaining a more equal distribution of referral rate across the Health District will be dealt with in the discussion at the end of this chapter.

3.6 REFERRAL RATES AS A PROPORTION OF LIST SIZE

Table 3.c presents referral rates from the practices which referred most cases expressed as a percentage of list size both for the entire project, and for the year in which the practice referred most cases. Bridge of Allan, the smallest practice of the three, has the highest percentage referral rate at 1% for one year, the maximum rate for the other two practices being 0.3% per year. These figures are markedly smaller than those produced from the survey by McPherson and Feldman (1977) discussed in the introduction. This is clearly an important issue as it has implications for health care planning, and it is dealt with in the discussion section at the end of this chapter.

3.7 INDIVIDUAL G.P.s' REFERRAL RATES

In parallel to the variations in the referral rates between practices there were also large variations in referral rate between individual G.P.s. The mean number of cases referred per GP for the four year period was 9.3 cases, the range being 1 to 81 cases. Table 3.d presents this data with the

Table 3.d Individual G.P. referral rates 1979 to 1982.

N. of cases referred	No. of G.P.s referring		%
0	18		21%
1	7	)	
2	2	)	
3	8	)	
4	10	)	
5	8	)	58.5%
6	4	)	
7	3	)	
8	3	)	
9	3	)	
10	2	)	
11 to 20	8		9%
21 to 30	4		5%
31 to 40	3		3.5%
41 to 50	1		1%
51 to 60	1		1%
61 to 70	0		
71 to 80	0		
81 to 90	1		1%
Total No. of G.P.s:	86		
Total N. of G.P.s referring:	68		

number of cases referred broken down into blocks of ten, and with the numbers of G.P.s referring between 1 and 10 cases broken down into units. The reader will note that during the period from which this data was gathered 68 of the health district G.P.s referred cases. The table shows that 58.5% of G.P.s referred between 1 and 10 cases, 9% referred between 11 and 20 cases and 11.5% referred more than 20 cases.

Some of the possible reasons for individual variations in the referral rate were discussed in section 3.5 above, two additional factors will be investigated here.

Firstly four different surveys have studied the age of family doctors as a determinant of referral to psychiatrists, all of them report that older doctors have higher referral rates (Shepherd et al 1966, Gardiner et al 1974, Shortell and Daniels 1974, and Robertson 1979). This factor was examined by correlating each doctor's number of years since qualification and the number of cases he had referred between 1979 and 1982. A small but statistically significant negative correlation was found between age and number of cases referred (Spearman Rank Correlation Coefficient = 0.29, $t = 2.26$, $P < 0.05$ two tailed), demonstrating that younger G.P.s tended to refer more cases to the new service. This finding will be discussed in the discussion section at the end of this chapter.

The second G.P. variable possibly affecting referral habits to be investigated was the number of cases referred by trainers. These are principals in general practice who have been accepted by the Royal College of General Practice to act as supervisors and tutors to G.P. trainees, one trainee is allocated to each trainer per year. At the time of the study there

were five G.P. trainers working in the Stirling district, who referred on average 19 cases each during the four year period of the study. This was twice the average referral rate for all referring G.P.s, which as mentioned above was 9.3 cases during the same period. The practices containing trainers also tended to refer more cases, they are marked with a "T" in Table A and inspection of the table reveals that the five practices fall first, second, fifth, sixth and fifteenth in the league table of the 27 practices using the service between 1979 and 1982.

To summarise this section, there were large differences in the number of cases referred by individual G.P.s. Two specific factors were investigated and both were found to be relevant, younger G.P.s tended to refer more cases than older G.P.s, and G.P. trainers referred more than G.P.s not involved in training, training practices also tended to refer more cases than non-training practices.

3.8 PILOT STUDY OF ALTERNATIVES TO PSYCHOLOGICAL TREATMENT

The question of how G.P. referred cases would have been managed before the introduction of the service was investigated by sending the first 30 G.P.s to refer cases in 1979 a simple questionnaire. This gave the particular patient's name and address and asked the doctor to specify which of a number of management options he would previously have adopted. All 30 questionnaires sent out were returned completed. Table 3.e shows the format of the questionnaire and the results.

The table shows that the G.P.s would have retained 64% of cases in their own care, they would have referred a further 27% of cases to

Table 3.e Replies to G.P. Survey of alternatives to Psychological treatment.

Prior to the Existence of the Psychology Service I would have managed this case by:

		N	%
1.	Referral to a Psychiatrist	8	27%
2.	Referral to the Social Work Dept.	1	3%
3.	Involving the Community Nursing Service	-	-
4.	Referral to a hospital specialist	1	3%
5.	Continuing to treat the case myself	19	64%
6.	Other (please specify)	1	3%
		30	

psychiatrists, and they would have referred the remaining 9% to variety of specialists or agencies.

This brief survey demonstrated that for at least two-thirds of cases the service was providing a new management option to G.P.s for cases which they would previously have dealt with themselves. Furthermore a number of G.P.s who stated that they would have referred the case elsewhere indicated that this would have been done reluctantly.

3.9 SUMMARY & DISCUSSION: THE FORTH VALLEY HEALTH BOARD COMMUNITY PSYCHOLOGY SERVICE

3.9.1. Summary

The aims administration and setting up of the service are described. Between 1979 and 1983 G.P.s referred 81% of referrals, and by 1983 87% of G.P.s working in the district had referred cases, and 28 of the 30 practices had referred cases. There were large variations in referral rates between practices and between individual G.P.s, a number of possible explanations were advanced and relevant data was available to test some of these. A pilot study of G.P. management of referred cases prior to the introduction of the service found that 64% of cases would have been retained in the G.P.s own care.

3.9.2 Discussion

This chapter reports three main findings, the first two will be discussed jointly and the third will be dealt with below. Firstly over a five

year period the use of the service grew until all but 6 of the 88 eligible G.P.s had referred cases at some point. Secondly however, in spite of this widespread usage of the service, there were large variations in referral rate between practices and individual doctors.

These findings have different implications for an evaluation of the service, the first is clearly a sign of the success in both publicising the new type of service and convincing G.P.s that it would be worthwhile referring their patients for specialist psychological treatment. The second is an indication of a relative failure to provide equal access for suitable patients throughout the district. There are no papers in the literature dealing specifically with this topic, however Liddell et al (1981) in their description of a method used to stimulate G.p. referrals do touch upon this point. They circulated all G.P.s working in one London Health district with a letter giving information about the new psychology service, and then followed this up by either telephoning or visiting individual G.P.s in order to discuss suitable types of referral, 69% of G.P.s in the district were contacted in this way. Liddell et al note three interesting points about this procedure, firstly when contacted it was apparent that many G.P.s had either forgotten about the service, or had misunderstood the information, this is of course not surprising in view of the large volume of new information G.P.s have to absorb. Secondly there was no difference in effectiveness in stimulating referral between telephone contact or a visit, and thirdly all of the G.P.s who referred cases during the following year had been among those contacted personally. The main relevant conclusion from Liddell et al study to the question of variations in referral rate is that clearly written contact alone is not effective in stimulating referrals, the reader will recall that this was the chief method used to publicise this service originally. Upon

reflection it is apparent that high referring G.P.s were also those with whom the author had most personal contact, so clearly the same effect noted by Liddell et al was operating here.

A further method of influencing referral rates not mentioned in the literature would be to give G.P.s feedback on their annual referral rates, with reference also to the average rate across the district. G.P.s are used to receiving feedback in other contexts, such as prescribing costs, and would probably welcome such information about a new service. In addition to stimulating low referring G.P.s to refer more such a procedure could also curb the referring rates of the small number of very high users of the service, thus generally making the service provision more equitable.

To conclude this discussion of the variations in referral rate found in the study two proposals have been advanced which might have averted this, these are firstly personal contact betwen the psychologist and all G.P.s in the health district by telephone or meeting, and secondly annual feedback to each G.P. on his usage of the service. These proposals are currently under implementation and evaluation.

The third major finding in this chapter was that far smaller proportions of G.P.s lists were being referred in comparison to McPherson & Feldman's (1977) survey results. The G.P.s in the highest referring practice referred 1% of their list during their highest referral list, in contrast the reader will recall that the corrected "suitable for psychological treatment" figure from McPherson's & Feldman's survey was 5.9% of a practice list. From the literature there appear to be four possible explanations to account for this large discrepancy. Firstly there may be prevalence differences between

the two settings, secondly certain problems may be omitted in this service which were included in McPherson and Feldman's survey, thirdly G.P.s may be failing to identify some suitable cases and fourthly G.P.s may be exercising selective referral criteria. These factors will be discussed in turn.

1. Prevalence differences: McPherson & Feldman's study was conducted in two group practices in Birmingham, one in a "working class area", the second in a "socially more mixed area". It is unlikely that prevalence rates for psychological problems should vary greatly between these city practices and some of the urban practices in Stirling and Alloa (the latter undoubtedly being an economically depressed working class area) in this study, although prevalences may vary between McPherson and Feldman's practices and the rural practices in this study.

2. Different problems: McPherson & Feldman do not give a detailed breakdown of patients' problems, but it is apparent that two types of problem, alcohol problems and child behaviour problems, were included in their survey but deliberately excluded from this study (both were excluded because local treatment facilities were already existing). A further local difference was that a psychosexual service was already operating within the District receiving on average 65 referrals per year. A small number of those cases were passed on to the psychologist in 1979 and 1980, but the bulk were dealt with by the psychiatrist concerned. These local difference could account for part, but not all, of the difference in rates.

3. G.P.s missing suitable cases: McPherson & Feldman used a method which was likely to select all suitable cases, in normal clinical practice the

phenomenon of G.P.s mis-diagnosing a proportion of psychological cases is well demonstrated (Goldberg & Huxley 1980).

4. G.P.'s referral criteria: McPherson & Feldman used the wide referral criteria of "could benefit from treatment", in contrast in the clinical situation the G.P. will employ a wide range of positive and negative criteria, examples being the severity of the patient's problem and the patient's compliance record with previous treatment. The G.P. will also probably have in mind the success or failure of the psychology service in treating previous similar cases.

The first of these four explanations can be clearly rejected, the second definitely occurred and either or both of the third or fourth may be operating. The three G.P.s from the leading practice views on this topic are of interest. The number of cases they had referred during their peak year was discussed with them, they all felt that they had referred all of the sufficiently severe and appropriate cases, who would have a reasonable prognosis in treatment. They did not think that they had under-referred during the year. The most important conclusion from this discussion is that, for whatever reasons, McPherson & Feldman's prevalence figure is clearly an over-estimate of the referral rate to a district wide primary care service, and this has important implications for service planning. This topic will be discussed further in chapter 9.

CHAPTER 4

THE PATIENT SAMPLE

4.1. PATIENT DEMOGRAPHIC CHARACTERISTICS

4.1.1 Sex Distribution

During the three year period between 1979 and 1981, 698 cases referred to the service, 356 (52%) of referred patients were female, 297 (43%) male, the remaining 45 (6%) cases being couples referred for sex therapy and marital therapy.

This is a surprisingly equal sex distribution for a population of patients with emotional problems. Shepherd et al (1966) in their survey of psychiatric morbidity in primary care found that 68% of patients suffering from neurosis were female, and reported overall psychiatric morbidity rates of 175 per one thousand for females, and 98 per one thousand for males. Similarly Marks (1969) in a survey of phobic referrals to the Maudsley Hospital, reported that 75% of phobics are females. The sex incidence of anxiety states is less clear, as surveys in primary care have indicated that two-thirds of patients with anxiety states are women, but surveys of anxiety states among psychiatric patients have found an equal sex distribution (Marks 1973). The distribution of the sexes within problem categories will be discussed in detail in section 4.2.2. below.

Twenty one patients were referred for psychological assessment rather than treatment, and 42 patients referred for treatment failed to attend. The

demographic characteristics of the remaining 635 treatment cases are described in sections 4.1.2. to 4.1.4. below. The same population will also be used in sections 4.2 and 4.3 of this chapter.

4.1.2 Age

The mean age of the whole sample was 35.0 years (standard deviation 12.4 years), the mean age for females was 33.6 years (standard deviation 12.6 years), and for males 36.7 years (standard deviation 12.1 years). The distribution of age in ten year blocks is shown by histogram in Fig. A. Inspection of Fig. A shows that the referral group is comprised mainly of young adults, with 75% of patients aged 15 to 44, and 33% aged 25 to 34.

4.1.3. Marital Status

66% of the patients were married, 24% single, 8% were divorced or separated and 2% were widowed. The distribution of marital statuses was similar for both sexes except that marital breakdown was more common among the females, 12% of females and 4% of males being divorced or separated. However this difference was not significant by chi-squared tests. 65% of the sample had children.

4.1.4 Social Class and Employment Status

Social class was classified by occupation using the categories and definitions used in the most recent national census (Office of Population Censuses and Surveys 1981). Fig. B presents a histogram of the distribution of social classes in Scotland from the 1981 census, and the distribution

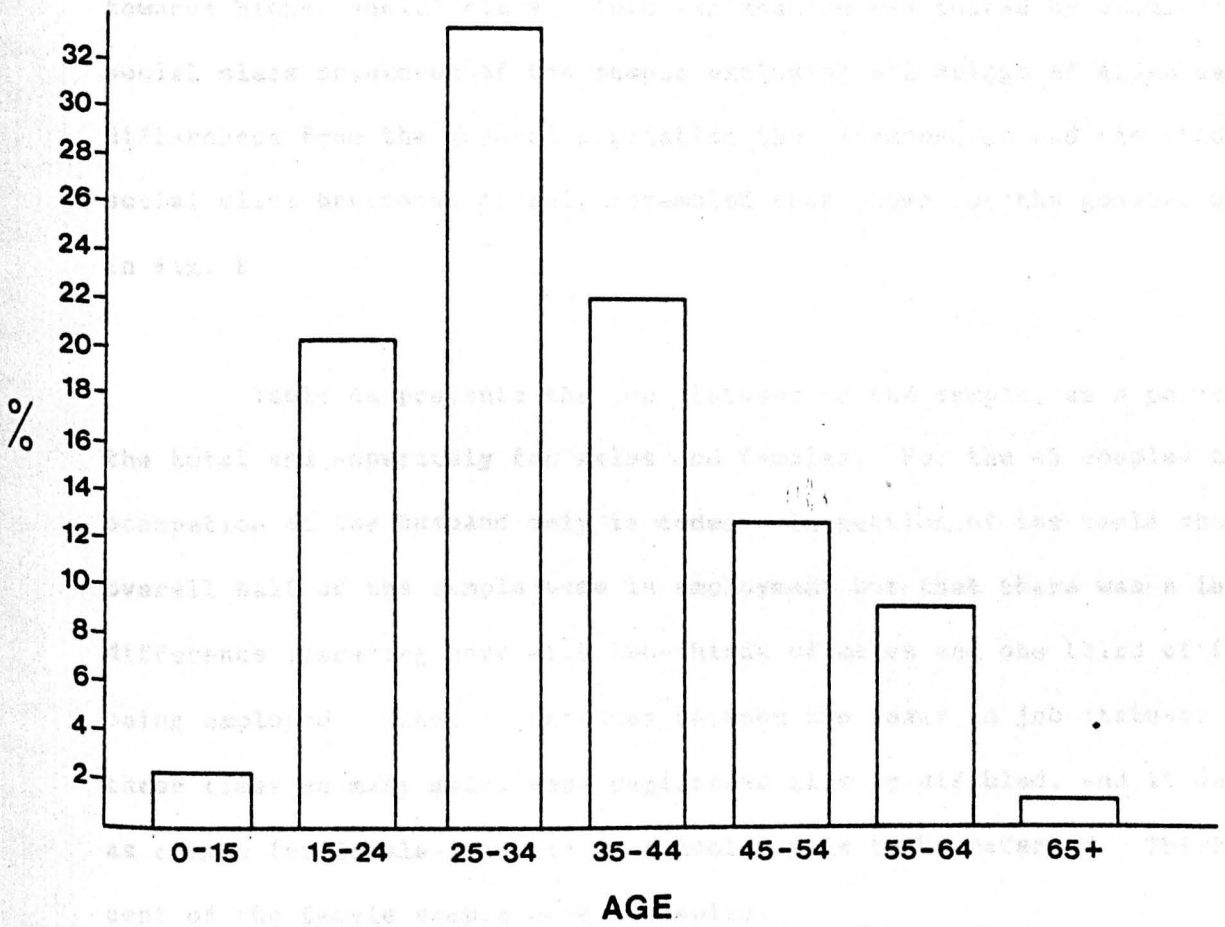


Fig A : Age distribution of referred population (n=698)

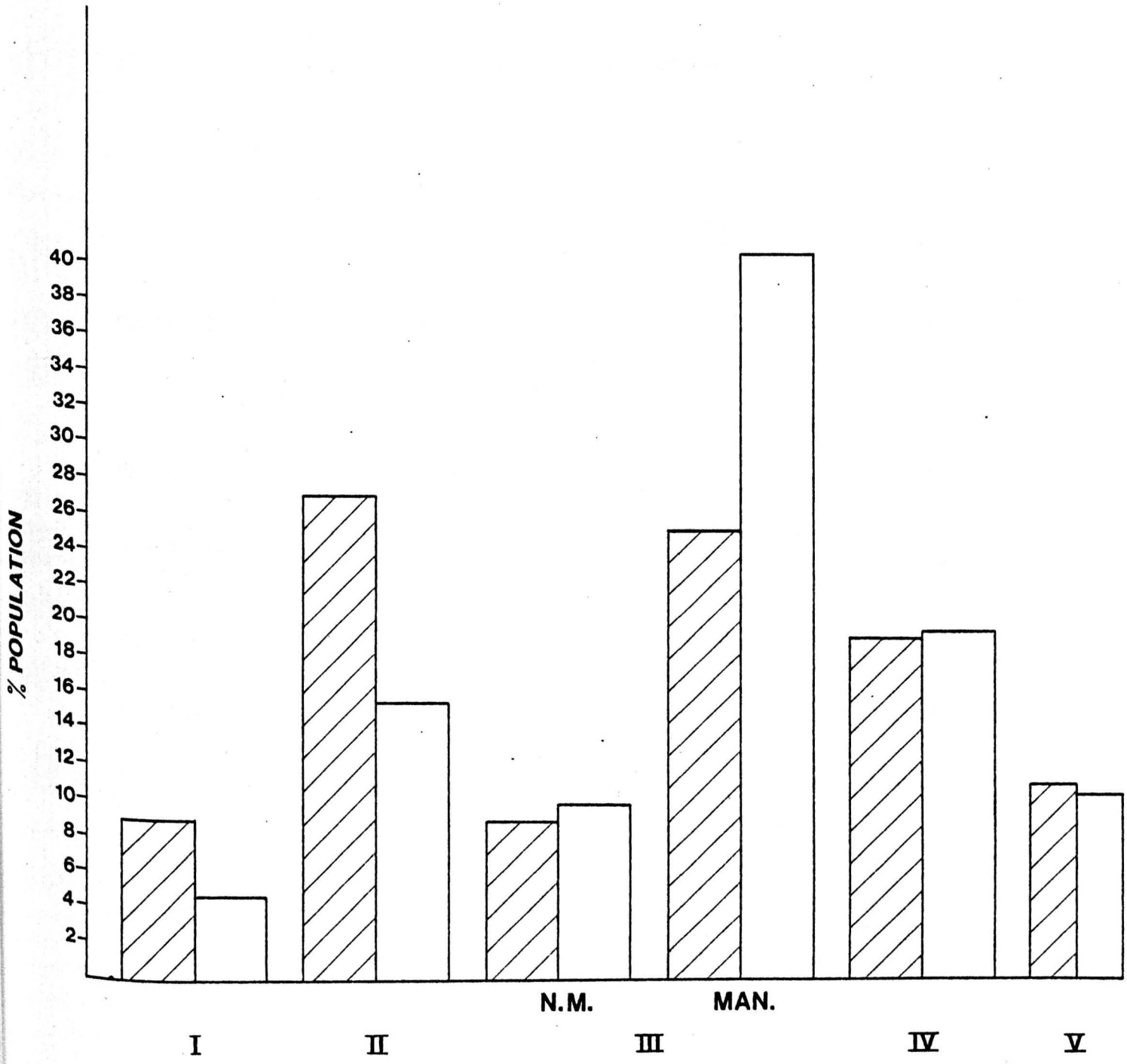
Inspection of Fig. B shows an apparent excess of cases from social classes I and II, with a corresponding shortfall of cases in class IIIM. However, the differences in distribution between the study population and the general population was not statistically significant (chi-squared = 0.33, n.s.).

There are various possible explanations for the excess of social class I & II cases in this study, the simplest being that Bridge of ALlan Health Centre, which referred 19% of cases, has undoubtedly a list skewed towards higher social class. This explanation was tested by examining the social class breakdown of the sample excluding all Bridge of Allan cases, the differences from the general population then disappeared and the study sample social class breakdown closely resembled that shown for the general population in Fig. B.

Table 4a presents the job statuses of the sample, as a percentage of the total and separately for males and females. For the 45 couples the occupation of the husband only is coded. Inspection of the table shows that overall half of the sample were in employment but that there was a large sex difference operating here with two-thirds of males and one third of females being employed. Other differences between the sexes in job statuses were that three times as many males were registered sick or disabled, and it was twice as common for female students or school pupils to be referred. Thirty per cent of the female sample were housewives.

4.1.5 Summary of Demographic Data

The 635 cases referred for psychological treatment were predominantly adults aged between 20 and 40, there was an approximately equal division of



KEY: Study population

Scottish population

Figures in bars are % of the total sample

Fig B: Social class distribution of study population and Scottish population (Office of Population Censuses & Surveys 1981)

Table 4.a Job Status on referral of treatment sample

	Males N=342 (includes 45 couples)	Females N=356	Total N=698
Employed	63%	36%	49%
Sick or disabled	17%	6.5%	11.5%
Unemployed	7.5%	4.5%	6%
Student/School pupil	11%	21%	16%
Housewife	-	29.5%	15.5%
Pensioner	1.5%	2.5%	2%

sexes. Two-thirds of the sample were married, marital breakdown was more common among females. The distribution of social classes classified by occupation was broadly similar to the social class profile for Scotland except that there was a slight excess of cases from social classes I and II and a corresponding shortfall of cases from social class III M, but this difference was not significant. Two-thirds of males and one-third of females were in employment.

4.2 PATIENTS' PROBLEMS AND HISTORIES

The problems of the 635 treatment cases were classified by the psychologist using a system of 28 exclusive categories. The criteria for adopting specific diagnoses were drawn from two sources. 18 diagnoses were drawn from the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (DSM-III 1980). These were: generalised anxiety disorder (panic disorder), agoraphobia, major depressive disorder, social phobia, simple (focal) phobia, sexual dysfunction, somatisation disorder, obsessional ruminations, personality disorder, tobacco dependence, obsessional rituals, alcohol problem, marital problem, psychosis, sexual deviation, anorexia, drug abuse and gambling disorder. A further problem, insomnia, was defined according to the criteria specified by Bootzin & Nicassio (1978). 8 further problem categories were defined by the author, in each case these tended to be habit or behavioural problems where diagnosis could generally be regarded as being straightforward, these were: headache, pain, family relationship problems, obesity, study problems, aggressive behaviour, stuttering and psychological reactions to physical illness. Finally there was an "other" category for any problem not classified using the above system.

If a patient presented with more than one problem he was classified on the basis of the problem which formed the chief focus of treatment. Table 4.b presents the 635 patients subdivided into the 28 categories and divided into sexes. 45 cases were couples referred with either sexual or marital problems, 42% of the remaining 591 cases were male, 58% female.

Inspection of the distribution of problems in Table 4.b shows that 32% of patients were suffering either from an anxiety state or from a somatisation disorder, a closely related condition. 38% were suffering from agoraphobia, social phobia or simple phobias. Thus 70% of the sample were suffering either from phobias or generalised anxiety. 8% of cases were suffering from a major depressive disorder and 7% were cases of sexual dysfunction and deviation. The remaining 15% of the sample is composed of a mixture of specific psychiatric syndromes (viz. anorexia), habit disorders and relationship problems.

4.2.2 Sex distribution of Problems

Of the 591 individual treatment cases 247 (42%) were male, 344 (58%) female. Inspection of Table 4.b shows that there were considerable variations in the sex distribution of different problems. Of the six individual problem categories containing more than 30 cases four; agoraphobia, depression, simple phobia, and somatisation disorder were predominantly female, whilst generalised anxiety and social phobias were equally distributed between the sexes. These findings were consistent with previous research findings on the sex distribution of the neuroses (Marks 1969 and 1974, Goldberg and Huxley 1980, Shepherd et al 1966). The remaining 20 individual problems were overall

Table 4.b Distribution of Problems (N = 635)

Problem	Males	% of Pts. with problem	Female	% of Pts. with problem	total	% of whole sample
1. Anxiety	85	50%	86	50%	171	27%
2. Agoraphobia	19	23%	63	77%	82	13%
3. Depression	10	19%	42	81%	52	8%
4. Social Phobia	27	55%	22	45%	49	8%
5. Simple Phobia	14	30%	33	70%	47	7%
6. Sexual Dysfunction					36	6%
7. Somatisation Disorder	12	36%	21	64%	33	5%
8. Obsessional ruminations						
9. Personality disorders	5		9		14	2%
10. Insomnia	6	50%	6	50%	12	2%
11. Smoker	7	58%	5	42%	12	2%
12. Headache	7	64%	4	36%	11	2%
13. Pain	5	45%	6	55%	11	2%
14. Obsessional rituals						
15. Alcohol problem	7		2		9	1%
16. Marital problem					9	1%
17. Family relationships	3		6		9	1%
18. Obesity	1		7		8	1%
19. Study problem	3		2		5	
20. Psychosis	3		2		5	
21. Sexual deviation	5		0		5	
22. Aggressive behaviour						
23. Anorexia	1		3		4	
24. Drug Abuse	3		1		4	
25. Stutter	2		2		4	
26. Gambling	3		0		0	
27. Physical illness	0		3		3	
28. Other	5		5		10	
	247*	42%*	344*	58%*	635	

(*refers to sample of 591 individual cases)

evenly distributed, (80 males and 77 females), and the number of cases involved are too small to give any reliable indicators of sex differences.

4.2.3. Length of Problems

Table 4.c presents the mean length of the current episode of the presenting problem for males and females. The length of symptoms was defined at the initial interview with the psychologist, and was always fixed by reference to exernal events in a similar manner to that used for dating life events (Brown and Harris 1978). Males tended to have a longer history than females but this difference was not statistically significant. The mean length of time for which the current symptoms had been present was 6.9 years, only 9% of the patients had problems of less than one year in duration. As chronic psychiatric illness is usually defined in epidemiological surveys as a continuous episode of more than one year in duration (Shepherd et al 1966), the patients in this study were clearly a chronic rather than acute group.

4.2.4 Drug Usage

At admission to treatment 337 (57%) of the 591 individual treatment cases were taking psychotropic medication. Psychotropic medication was defined as all drugs listed in Section 3 of the Monthly Index of Medical Substances (MIMS), this being the section covering the central nervous system. Drug usage was equally distributed between the sexes, and of the 44 couples seen with sexual or marital problems in 10 couples one partner was taking medication, and in one further couple both partners were taking psychotropic medication.

Table 4.c Mean Length of Problem: Males & Females (N = 591)

	Mean time in years	Std.dev.	T	Sig.
Males	7.73	9.34		
			1.32	N.S.
Females	6.08	6.54		

Drug usage was investigated only for those cases discharged during the experimental period between 1979 and 1981, and will be discussed fully in Chapter 6.

4.2.5 Previous Treatment

The reader will recall from the previous chapter that psychiatrists referred 137 cases (19.6%) of the study population, this proportion of cases had therefore by definition received previous psychiatric assessment or treatment. 21 of these patients failed to attend, so 116 psychiatrist referred cases were available for study. A further 87 cases referred by G.P.s had previously been seen by psychiatrists. Thus in total 203 cases (34.3%) of the 591 cases in the individual treatment sample had received previous psychiatric treatment. Twelve partners from the 44 cases of sexual and marital problems had also received previous psychiatric treatment. Only three of these 215 patients had been previously seen by a psychologist, this of course reflected the absence of any psychology services previously, and each of these patients had also received psychiatric treatment.

The mean length of previous psychiatric treatment was 2.2 years (standard deviation = 3.9 years). The majority of cases had received outpatient treatment only, the small number of patients who received inpatient treatment also tended to have been seen for long periods of outpatient treatment. Most of the psychiatric treatment patients had received was some form of pharmacotherapy, some patients had received individual psychotherapy as an adjunct to this and 4 patients had attended an outpatient psychotherapy group.

Overall therefore 33.8% of the 635 patients in the treatment sample had received previous psychiatric treatment. For the majority of patients this had involved outpatient drug therapy received at appointments spaced at intervals of between one and three months over an average course of two years. The next section compares patients who had received previous psychiatric treatment with those who had not.

4.3. PSYCHIATRIST REFERRED CASES AND G.P. REFERRED CASES

4.3.1 Population Used

After excluding the 42 non-attenders and 21 assessment only cases the remaining 635 cases, 116 psychiatrist referred and 519 G.P. referred, were used as the study sample. Patients referred by G.P.s who had received psychiatric treatment in the past were included in the G.P. group, in order to make this sample fully representative of all G.P. referrals. The two populations will be compared on each of the variables discussed in the first two sections of this chapter.

4.3.2 Demographic Characteristics

There were no differences between the two samples on any of the demographic variables presented in section 4.1. Sex distributions were similar, 42% of G.P. referred cases and 43% of psychiatrist referred cases being male. The mean age of psychiatrist referred cases was 35.2 years in comparison with 34.1 for the G.P. group, and the age distributions of the two groups were similar. The marital statuses and the incidence of marital

breakdown was similar for the two groups, as were the social class distribution and employment statuses of the two populations.

Thus, in terms of the five types of demographic variables investigated, the two groups appeared to be selected from the same population.

4.3.3 Patients' Problems

Table 4.d presents a breakdown of cases into the same problem categories as Table 4.b, with the sample divided into psychiatrist and G.P. referred cases. As G.P.s referred 81% of the sample the proportion of cases in each problem category should split approximately 80:20% between the G.P.s and psychiatrists if the two groups are referring at the same rates. Inspection of the table shows that in only 9 of the 28 problem categories have psychiatrists referred a proportion of cases in the range of 10-30%, they referred proportionately more cases than G.P.s in a further 6 categories and proportionately fewer in the remaining 13 categories.

Examining this distribution in descending order of frequency, there were no differences between groups in the rates at which they referred the two commonest types of problem, generalised anxiety and agoraphobia. Psychiatrists referred only 10% of cases with the third most common problem, depression. This probably reflected the current psychiatric viewpoint concerning the efficacy of psychological treatments for depressions, whereas G.P.s often referred depressed patients who had received psychiatric treatment in the past. This tendency for psychiatrists not to refer depressed patients will almost certainly have changed since the period of this study with the introduction of cognitive therapy as a new method of treatment (Beck et al

Table 4.d Problems of G.P. & Psychiatrist Referred Patients.

	Total	G.P. Referred		Psychiatrist Referred	
		N.	% of Problem Total	N.	% of Problem Total
1. Anxiety	171	142	83%	29	17%
2. Agoraphobia	82	63	77%	19	23%
3. Depression	52	48	90%	5	10%
4. Social Phobia	49	33	67%	16	33%
5. Simple Phobia	47	40	85%	7	15%
6. Sexual Dysfunction	35	34	97%	1	3%
7. Somatic Symptoms	33	30	91%	3	9%
8. Obsessional ruminations	14	8	57%	6	43%
9. Personality Dis.	14	7	50%	7	50%
10. Insomnia	12	11	91%	1	9%
11. Smoker	12	11	91%	1	9%
12. Headache	11	7	64%	4	36%
13. Pain	11	10	91%	1	9%
14. Obsessional rituals	10	5	50%	5	50%
15. Alcohol problem	9	7	78%	2	22%
16. Marital problem	9	7	78%	2	22%
17. Family relationships	9	9	100%	0	
18. Obesity	8	7	87%	1	13%
19. Study problem	5	5	100%	0	
20. Psychosis	5	4	80%	1	20%
21. Sexual deviation	5	1	20%	4	80%
22. Aggressive behaviour	4	4	100%	0	
23. Anorexia	4	3	75%	1	25%
24. Drug abuse	4	4	100%	0	
25. Stutter	4	4	100%	0	
26. Gambling	3	3	100%	0	
27. Physical illness	3	3	100%	0	
28. Other	10	10	100%	0	
TOTAL	635	519		116	

1979, Blackburn et al 1981). Psychiatrists referred one third of the 49 cases of social phobia, this condition is complex, rarely seen by G.P.s in contrast to the first three diagnoses and easily confused with diagnoses of depression or personality disorder. For these reasons it is probable that G.P.s under-referred the problem to the psychology service, tending to send patients to the psychiatric services first for assessment.

Simple phobias were referred proportionately equally by the two groups but psychiatrists referred only one of the 35 cases of the sixth most frequent problem, sexual dysfunction. The probable explanation for this is local factors, as one of the local psychiatrists had particular skills and interests in sexual dysfunction therefore psychiatrists would have referred cases to him rather than to the psychology service. An alternative explanation is that cases of sexual dysfunction are not referred to psychiatrists by G.P.s, except for the one specialist whose interest was well known to G.P.s, this would then explain the absence of referral on from psychiatrists to the psychologist.

Psychiatrists referred 9% of cases of somatisation disorder, probably for the same reasons just discussed, namely that G.P.s tend to retain such cases in their own care recognising that the local psychiatric service is not orientated to deal with this type of patient.

The seven problems discussed above comprise 74% of the treatment sample. Of the other 21 problems psychiatrists referred large proportions of cases with certain clearly recognised psychiatric syndromes, these being obsessional ruminations, personality disorders, obsessional rituals, sexual deviation and psychogenic headaches. There was a proportional distribution of

referral of alcohol problems, marital problems, psychosis and anorexia, and G.P. referrals predominated for the other 12 categories which were chiefly of habit problems. However it should be noted the numbers of patients in each of these 21 less frequent categories are small, ranging from 14 to 3 cases, and therefore it would not be appropriate to draw any conclusions from this data.

4.3.4 Patients' Histories and Severity: Psychiatrist and G.P. Referred Cases

Psychiatrist referred and G.P. referred cases were compared statistically on 5 variables. Non-parametric statistics were used throughout this analysis as a number of the variables had skewed distributions and would have been unsuitable for parametric analysis.

The variables investigated were length of present episode of problem, whether the patient had been taking medication and for how long medication had been taken. The 87 cases referred by G.P.s who had received psychiatric treatment were also compared to the 116 psychiatrist referred cases in terms of how much psychiatric treatment they had received in years and months. Lastly the 2 groups were also compared on the therapist's total severity rating score at admission (TTOTPROB).

Only one of these analyses was statistically significant, the results are shown in Table 4.e, psychiatrist referred patients had suffered their problem for significantly longer. There was no difference between the groups in their usage of medication or the length of time on medication. Surprisingly there was also no difference in the amount of psychiatric treatment received between psychiatrist referred patients and the sub-groups

Table 4.e Length of Problem, Psychiatrist referred and G.P. referred cases

	G.P. Cases (N = 519)		Psychiatrist Cases (N = 116)		Mann-Whitney U-Test	
	Mean	S.D.	Mean	S.D.	Z	Sig.
Length of Problem (yrs.)	6.7	5.5	9.0	7.2	-2.24	$p > 0.025$

of G.P. referred cases previously treated (means = 2.1 years and 1.9 years respectively). There was no difference in initial symptom severity between the two groups.

4.3.5 Summary of comparisons of psychiatrist and G.P. referrals

When patients referred from the two sources were compared systematically across a number of variables few differences emerged. The two chief findings were firstly that psychiatrist referred patients had had their problems for significantly longer and thus were a more chronic group, and secondly there was some difference in the types of problems referred. Specifically psychiatrists were unlikely to refer cases of depression, sexual dysfunction and somatisation disorder, but were more likely to refer certain types of rare psychiatric syndromes, such as obsessional disorders. The possible reasons for these different referral patterns were discussed in detail.

4.4 INAPPROPRIATE REFERRALS

Prior to the setting up of the project concern had been expressed by some of the local psychiatrists about the risk of G.P.s referring inappropriate cases to the service. This point was also raised during questions at the introductory seminar in February 1979, when the project team was asked directly about the risk of cases of endogenous depression being misdiagnosed by G.P.s and incorrectly referred to the psychologist, with possibly harmnful implications for the patient.

These fears proved to be unfounded. During the three year experimental period only two of the 53 cases referred by G.P.s were assessed by the psychologist as being inappropriate, and were therefore referred on for psychiatric assessment. Both patients were male, one was referred as suffering from social phobia but following careful interviewing it became apparent that he was a paranoid psychotic. Following a psychiatric assessment this man was commenced on anti-psychotic medication and was also seen further by the psychologist for individual social skills training. The second patient was referred as suffering from a generalised anxiety state but it transpired that by the time of his first interview with the psychologist he was seriously depressed, following referral on the case was managed by a consultant psychiatrist.

The reader will see in the section on discharge classification in the following chapter that 35 cases were classified closed as "referred on" during the study period. There is a detailed description of the reasons for referring cases on to other sources in Chapter 5, however it should be noted here that 33 of these cases were considered as approriate referrals by the psychologist, and were only referred on after an unsuccessful trial of treatment or because of intervening events.

In this project there was clearly no problem of inappropriate referrals to the service. However the author would question the whole basis of such concerns on two grounds. Firstly qualified clinical psychologists are well trained in psychiatric diagnosis, and are therefore well able to identify cases that would be more appropriately managed by a psychiatrist than a psychologist. Secondly many G.P.s are obviously more skilled at psychiatric

diagnosis than some psychiatrists would consider them to be. Indeed it is the author's opinion from teaching experience with both clinical psychologists, trainee psychiatrists and general practitioners, that in the field of mental health the most complex level of skills is not required for diagnosis, where the skills are easily learnt, but for management and treatment where the relevant skills may take years to acquire.

4.5 SUMMARY AND DUSCUSSION: THE PATIENT SAMPLE

4.5.1 Summary

During the three year study period 52% of referred cases were female, 43% male, 6% were couples, the majority of cases were young adults. The distribution of problems is described in detail using a 28 category system. The mean length of problems was 6.9 years, this was therefore a chronic population. Psychiatrist and G.P. referred cases were compared, only 2 differences emerged, psychiatrist referred patients had longer histories and there were some differences in the types of problem referred. Inappropriate referrals by G.P.s were very rare.

4.5.2 Discussion

There are three major conclusions about the service to be drawn from the data presented in this chapter. Firstly patients referred to the service are predominantly a chronic population, who have had their problem in excess of five years. Secondly, 70% of the sample were suffering from some form of anxiety disorder, either generalised anxiety, somatisation disorder or a phobia. Thirdly there were few differences between psychiatrist and G.P.

referred cases, in particular the former group's symptoms were no more severe at admission to treatment, the main overall difference to emerge between the two populations was that psychiatrist referred cases tended to be more chronic.

It is the first of these conclusions which has the most important implications for an evaluation of the service. As discussed in the Introduction, a number of long term studies have shown that there are two groups of patients with psychological problems in general practice, those with a short history and good prognosis, and those with a chronic unchanging course (Shepherd & Clare 1981). Harvey-Smith and Cooper (1970) report that for patients with a history of more than five years the chance of recovery during the following year is only 1 in 13. Thus G.P.s were referring cases to the project who would have been most unlikely to improve through spontaneous remission alone. This implies that the service was meeting one of the main aims of the project, to provide treatment for patients who genuinely required it, who would have been unlikely to improve without treatment, and for whom no alternative treatment, other than psychotropic prescription, was available.

CHAPTER 5

TREATMENT AND DISCHARGE

5.1 TREATMENT METHODS

The methods of treatment for all therapy cases were either behavioural psychotherapy or cognitive therapy. Behavioural psychotherapy, also known as behaviour therapy, has developed during the past twenty years into the third major treatment approach and body of knowledge in the field embodying mental illness, the other two approaches being organic models and associated physical treatments, psychodynamic models and psychotherapy. Behavioural psychotherapy methods are now widely regarded as the treatment of choice for certain types of problems occurring in adult psychiatry, most notably phobias, obsessional rituals and ruminations, and sexual problems, and the application of behavioural techniques with other types of mental health problem is under continual evaluation. Cognitive therapy is a more recent therapy method, having been developed as a treatment for depresaion over the past decade (Beck et al 1979), and recently also being introduced as a treatment method for anxiety (Durham 1982, Barrios and Shigetomia 1979).

All patients in this study were first interviewed in detail by the psychologist, this interview usually lasted for forty minutes and covered the patient's life history and background information in addition to analysing the presenting problem and the history of the problem. At the end of the first interview the patient would be told the psychologist's formulation concerning the origin of, and maintaining factors for, his problem. The treatment programme would then be outlined and the patient asked if he wished to

undertake it, if he accepted, the goals of therapy would then be defined by discussion between the psychologist and the patient.

After this standard introduction the treatment methods varied considerably depending on the patient's problem. The most frequently used techniques were relaxation, target setting and counselling. Most patients were also asked to record the frequency and severity of the symptoms upon which the treatment was focussed, in order to provide information for planning therapy and feedback about progress. Where appropriate more specialised techniques were used, examples being systematic desensitisation, flooding, cognitive therapy, thought stopping, bio-feedback and covert sensitisation.

5.1.2 Length of Treatment and Spacing and Length of Sessions

The mean number of treatment sessions for the 467 patients discharged by the end of the study period was 6.7 sessions (SD = 5.8). Following initial assessment subsequent treatment sessions lasted twenty or thirty minutes, so on average patients received between two hours forty minutes and three hours forty minutes of treatment. Obviously, there were exceptions to this at both extremes, a small proportion of patients attended for one session only and then dropped out of treatment, whilst a second small group of patients continued in treatment for long periods of time, seeing the psychologist for as many as twenty to thirty sessions of treatment. Treatment sessions were spaced at two to three weekly intervals during active treatment, and then at two to three month intervals during follow up.

5.2. TERMINATION OF TREATMENT

5.2.1 The eleven discharge categories

The manner in which treatment was terminated was classified using an eleven category system. This system was similar to but not identical with the consultation outcome codes developed by Philip (1983). The 467 cases discharged by the end of 1981, this being the end of the three year study period, are presented in Table 5.a subdivided into the eleven categories. The bars on the table divide the patients into three groups, those treated and available for follow up, those treated but lost to follow up, and those not treated. Table 5.a also breaks the sample down into sexes. Each discharge category will now be defined and then discussed in detail.

1) Discharged improved

156 patients, 33% of discharge cases, were categorised as discharged improved (DI). These were cases where both the patient and the psychologist agreed either that the presenting problem was entirely overcome, or where the patient felt that any remaining difficulties could be overcome unaided.

2) Drop out

The second largest termination category, 130 patients, 28% of the sample, were drop outs (DO). These patients entered treatment after an initial interview but at some stage thereafter failed to keep two consecutive appointments without contacting the psychologist. These relatively strict criteria for defining and discharging drop out cases were necessary in view of the

Table 5.a Discharge categories for Pts. Disch. by Dec. 1981, subdivided by sex.

	Male	%	Female	%	Total	%
DI	73	47%	83	53%	156	33%
DO	62	48%	68	52%	130	28%
DU	13	42%	18	58%	31	6.54%
D.C.	9	45%	11	55%	20	4%
Student	3	38%	5	62%	8	2%
Crisis G.	-		3	1%	3	0.5%
Ref.on	25	71%	10	29%	35	7%
Moved/ Died	3	16%	16	84%	19	4%
No show	10	24%	32	76%	42	9%
Assess.	12	57%	9	43%	21	4%
Refused	5	56%	4	44%	9	2%
	215	46%	252	54%	467	

large volume of referrals to the service.

3) Discharged unimproved

This category was the reverse of DI, with these cases both the patient and psychologist agreed that treatment had so far produced no benefit and that further sessions would be a mutual waste of time. Thirty one cases fell into the DU group, 6.5% of the discharge sample.

4) Discharged counselled

Twenty cases, 4% of the sample, were discharged counselled (DC). These patients were not offered any formal course of treatment but simply discussed their problem with the psychologist for not more than two sessions, they had either minor problems or their problem was entirely environmental.

5) Students

Eight Stirling University students were classified separately as their treatment was interrupted prematurely by the end of a semester, and for various reasons they did not wish to restart treatment the following semester. The treatment was therefore not a complete course but they were available for follow up.

6) Crisis gone

Three cases only were classified into the crisis gone (CG) group, all entered treatment because of an obvious stress in their environment, and then lost

their symptoms as soon as this problem was removed. The removal of the stress was the result of some outside cause (viz: to retire from a stressful occupation), and was not related to treatment interaction. Classifying these patients as DI cases would therefore have been inappropriate.

The 348 patients in these first six discharge categories received psychological management of their problems and were also available locally for follow up six months later. Follow ups were collected in series until the end of 1981 by which time data on 177 cases had been gathered. This follow up outcome data will be discussed in detail in the next chapter.

The following two groups of patients received treatment but were not appropriate for outcome evaluation.

7) Referred on

35 cases, 7% of the sample, were categorised as referred on either without treatment or after a period of psychological treatment. The various reasons for this are discussed in detail below.

8) Moved/died

19 cases, 4% of the sample, either moved out of the area or died of natural causes during treatment.

The final three groups of patients did not receive treatment.

9) No show

42 cases, 9% of discharge patients and 6% of the total number of patients referred, failed to keep two consecutive first appointments without notifying the psychologist.

10) Assessment

21 patients, 4% of the sample, were referred for psychological testing and assessment only.

11) Refused treatment

Nine patients were judged to be suitable candidates for treatment by the psychologist but refused the course of treatment that was offered to them. They were all seen for one appointment only.

5.3 PATIENT VARIABLES, DISCHARGE CATEGORY AND TREATMENT

The distribution of the patient variables discussed in Chapter 3 among the discharge categories was investigated. The treatment outcome categories will be considered first, with emphasis on the three largest outcome categories of chief interest, DI, DO, and DU.

Inspection of Table 5.a shows that the sexes were proportionately distributed across the treatment groups, with the only discrepancies occurring in the two small groups, student and crisis gone. Similarly there were no differences in the distribution of social classes and marital statuses between

the three groups, there were also no differences in the job statuses of the three groups, except that the DU group contained slightly more patients who were off work sick or who were registered disabled (see Table 5.b), this difference reached significance between the DU group and the DI group (chi-squared = 4/10, df = 1, p 0.05 two tailed).

Table 5.b also presents the number of patients in the three groups suffering from a major intercurrent physical illness, these were classified using an eight category system recommended by the general practitioner from the project management committee (0 = fit, 1 = cardio-vascular, 2 = CNS, 3 = genito-urinary, 4 = locomotor, 5 = respiratory, 6 = endocrine, 7 = gut, 8 = other). The reader will note that the numbers of patients off work sick and with intercurrent illnesses in Table 5.b do not tally, this is because the classification includes chronic as well as acute complaints, and therefore some of the patients with major physical complaints (viz: diabetes, hypertension) were still able to work. The table shows that there was a remarkable uniformity between the three groups in the proportion of patients suffering from an intercurrent physical illness, there was therefore no significant difference between the groups on this variable.

Table 5.c presents comparative data for the DI, DU and DO groups on six further variables: age, length of problem, the proportion of patients on medication, the length of time on medication, the proportion of patients who had received previous treatment and the length of previous treatment. The three groups were compared statistically on each variable using Mann-Whitney U tests, non-parametric tests were used again because of skewed distributions for the ordinal data variables, and chi-squared tests for the three nominal data variables. Only one of these statistical tests was significant.

Table 5.b Proportions of Pts. in DI, DO & DU Groups off sick and with major interrcurrent physical illness.

	DI		DO		DU	
	N = 156		130		31	
	N	%	N	%	N	%
Fit (i.e. able to work	142	91%	110	85%	25	81%
Off sick/ disabled	14	9%	20	15%	6	19%
Pts. with major intercurrent physical illness	34	22%	26	20%	6	19%

Table 5.c Age & Problem Related Variables for Discharged Improved, Dropout and Discharged Unimproved Pts.

	DI (N = 156)		Dropout (N = 130)		DU (N = 31)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Age	34.8	12.25	32.9	10.5	41.5	14.0
Length of Problem Yrs.	6.6	8.2	6.8	7.2	7.5	8.2
Time on Medication Yrs.	5.1	8.6	4.5	6.2	4.1	3.8
Length of Time of Previous Treatment Yrs.	2.7	4.9	1.7	2.9	2.1	3.8
% on Medication at admission	35%		34%		62%	
% Received previous treatment	32%		41%		56%	

Patients in the DO group were significantly younger than the patients in the DU group (Mann-Whitney U test, $Z = -2.23$, $p < 0.025$, the age difference between DI and DU patients just failed to reach significance at the 0.05 level ($Z = -1.89$, $P = 0.058$), the trend being for DU patients to be older. 62% of patients in the DU group were taking medication at admission in comparison to 35% and 34% of the DI and DO groups, this difference just failed to reach significance at the 0.05 level (chi-squared = 7.78, df = 3, n.s.).

The distribution of the eight commonest problems between the three groups was also investigated, however there was no difference between the proportionate incidences of these.

The three groups were also compared on two types of psychologist ratings of initial problem severity, the therapist total problem score (TTOTPRB), and the four handicap ratings made at outset. The means and standard deviations for these data are presented in Fig. 5.d, statistical comparisons were made between the three groups on each variable using a series of Mann-Whitney U tests, none were significant.

The relationship between the patients' own ratings of the severity of their condition and outcome were also investigated by computing (PTOTPRB), the sums of each patient's individual problem self-rating with a potential maximum score of 15 and minimum score of 0, data for this variable are also presented in Fig. 5.d. There were again no significant differences between the three groups on this variable.

Lastly, DI, DO and DU patients were compared on two types of consultation variables using a series of Mann-Whitney tests, the first were

Table 5.d Therapist Ratings of Total Problem Severity and Handicap at Admission & Patients' Self Ratings of Total Problem Severity: DI, DO & DU Groups.

	DI		DO		DU	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
TTOTPRB	5.27	3.02	6.16	3.24	6.62	2.78
Handicap work	1.25	1.19	1.41	1.21	1.18	1.16
Handicap social	1.37	1.34	1.41	1.31	1.31	1.01
Handicap family	0.64	0.98	0.69	0.99	0.62	1.08
Handicap sexual	0.42	1.03	0.44	0.99	0.37	1.02
PTOTPRBS	5.96	2.81	5.70	3.1	6.18	2.56

Table 5.e Number of Treatment Sessions: DI, DO and DU Groups.

	Mean N. of Sessions	S.D.	Statistical Comparisons: Mann-Whitney U Tests
DI (N = 156)	7.51	4.67	DI vs DO: Z = -5.41, p < 0.001
DO (N = 130)	4.34	4.07	DO vs DU: Z = -4.6, p < 0.001
DU (N = 31)	12.37	11.22	DU vs DI: Z = -2.36, p < 0.2

the frequency of their visits to the G.P. before, during and after treatment, the second was the number of treatment sessions they had with the psychologist. There was no difference between the groups in G.P. attendance rate, however there were large differences in the number of treatment sessions per patient (see Table 5.e), the patients who dropped out of treatment received significantly less treatment than either the DI or DU groups, and the DU group also received significantly more treatment than the DI group. Drop outs therefore tended to break off treatment early, whilst patients who did not respond to treatment received the longest courses of therapy.

5.3 SUMMARY PATIENT VARIABLES AND DISCHARGE CLASSIFICATION: TREATMENT GROUPS.

The three main treatment groups, DI, DO, and DU, were compared on each of twenty different variables, only three of these comparisons were statistically significant. Firstly DU patients were more likely to be off work sick than DI patients, secondly DU patients were older than DO patients, and thirdly there were differences in the amount of psychological treatment the groups received, with DU patients having the longest courses of treatment and DO patients the shortest.

5.4 PATIENT VARIABLES AND DISCHARGE CATEGORIES: THE FIVE NON-TREATMENT CATEGORIES

5.4.1 Referred on

35 patients were referred on to other services, Table 5.f gives a breakdown of the patients' problems and the services to which they were

Table 5.f Referred on Pts., Agency referred to and Problem.

Service	Problem	N
Psychiatric Inpatient	Overdose	3
	Obsessions	2
	Anorexia	1
	Severe anxiety	1
	Gambling	1
	Depression	1
	Social phobia	1
		10
Psychiatric Outpatient	Depression	9
	Psychosis	3
	Alcohol problem	1
	Sexual dysfunction	2
	Drug addiction	1
		16
Child Services	School refusal	2
	Anorexia	1
		3
Psychotherapists	Personality Disorder	1
	Social Phobic	1
		2
Hypnotherapy	Somatic symptoms	1
Physicians	Physical illness	2
Speech therapy	Stutter	1
	Total =	35

referred. 2 patients were referred on without treatment, the remainder received a trial course of psychological treatment first. Inspection of the table shows that 74% of referrals on were to Adult Psychiatry Services, the usual reasons being either that drug therapy or inpatient treatment were indicated. It was not possible for the psychologist to continue to manage patients in hospital due to the distance involved and the volume of clinical work. 2 patients were sent to the local Child Psychiatry Service, and 1 boy was referred to the Child Guidance Service. 2 patients with complex problems were referred to a psychiatrist specialising in psychotherapy, 1 man with somatic symptoms was referred to a G.P. locally who specialised in hypnotherapy. Finally 2 patients with predominantly physical illness were referred to a physician and 1 male stutterer who failed to respond to behavioural treatment was referred to the local speech therapy service.

5.4.2 Moved/Died

2 of the 19 patients in this category died, the remainder moved out of the district. All 17 patients who moved were receiving a course of psychological treatment, 11 of them were referred directly to the Psychology or Psychiatry Services in their new place of residence.

5.4.3 No Show

Table 5.g shows that 76% of the 42 patients who failed to attend for treatment were female, this difference was statistically significant (chi-squared = 8.22, DF = 1, P 0.01). This sex difference in failure to take up treatment is not reported elsewhere and is difficult to explain. The author would suggest four possible types of causal explanation. Firstly that

Table 5.g Problems of No Show Pts.

	No Show (N = 45) N	%	% of No Shows from Whole Sample for Problem
1. Anxiety	11	24%	6%
2. Agoraphobia	3	7%	4%
3. Depression	4	9%	8%
4. Social Phobia	-	-	-
5. Specific Phobia	4	9%	9%
6. Sexual Dysnfunction	6	13%	17%
7. Semantic Symptoms	-	-	-
8. All other Problems (Prob. Nos. 8 to 28 Table	16	36%	10%
unclassifiable)	1	2%	-
	45		

the difference is a general phenomenon that has been caused by practical difficulties females experience in attending the clinic due to baby-sitting and child-minding arrangements, secondly that the difference was related to patients problems and in particular to the higher proportion of agoraphobic cases in the female sample, thirdly that the difference is an artefact found only in the sample, and lastly a more subtle explanation concerns G.P.'s referral habits. It is possible that when referring patients G.P.s consult females less about the referral, and this leads to a greater likelihood of females not attending. The first of these explanations can be discounted on the grounds that, as shown in Table 5.a above, there was no difference between males and females in dropout rates, presumably if females found practical aspects of attending the clinic difficult they would also have a significantly higher dropout rate. The second explanation is also unlikely because, as shown in Table 5.g, agoraphobia was as common among no-show patients as among the whole sample, although this data is derived from G.P.'s referral letters alone and should therefore be treated with caution. There is no relevant data from the study to test the third and fourth explanations, and either or both of them may therefore have been in operation.

Aside from sex the other data available about no-show cases was their problem, as defined by the referring doctor, their ages and their place of residence. Table 5.g presents the problem classification of the 45 patients, using the seven most frequent categories, the percentage of non-attenders in each problem category for the whole sample is also presented. The reader will recall that non-attenders formed 9% of the entire sample. Inspection of the third column of Table 5.g shows that non-attenders were over-represented among patients with sexual dysfunction, this difference was statistically significant (chi-squared = 6.12, df = 1, p 0.025). Probable explanations

for this being either embarrassment about attending a specialist for such a problem, or refusal of the patient's partner to attend with them. Apart from this group non-attenders were distributed normally among the major problem categories.

There was no difference between the mean ages of no-show patients and of those who attended, nor was there differences between the ages of no-show women and men when compared separately to attending patients. The source of referral was similarly distributed in the no-show group and the whole sample, with 8 (18%) patients being referred by psychiatrists in the no-show group and 17.5% of patients being referred overall by psychiatrists. There were also no differences in the places of residence and general practitioners of no-show cases, the patients were distributed around the health district in similar proportions to the whole sample.

In conclusion, from the data available on no-show cases two items distinguish them from the whole study population, firstly there were significantly more females in this group and secondly sexual problems were over-represented. The reasons for failure to attend are probably complex and various, a proper study of the issue would involve interviewing no-show patients directly to assess their motives for not taking up the offer of treatment and also to measure various aspects of their cases. For example, a possible reason for not attending would be that no-show patients tended to have milder problems and were therefore less motivated towards treatment, such a hypothesis could only be tested by a thorough clinical assessment of a series of patients.

5.4.4. Assessment Referrals

Fifteen of the 21 cases referred for psychological assessment were referred by psychiatrists, the remaining 6 cases being referred by physicians at the local General Hospital. Two thirds of these referrals were for assessment of possible dementia, the remaining third being comprised of referrals for the assessment of handicap following head injury and simple intelligence testing. One case was referred by a psychiatrist for assistance with differential diagnosis between psychosis and depression.

5.4.5 Refused Treatment

The nine patients who refused treatment were a heterogeneous group with a variety of problems and came from a range of social backgrounds. It is likely that their motives in attending for interview but then refusing treatment were also diverse. Presumably their attendance, rather than simply cancelling their appointment by letter as did some of the no-show group, implies that if a more acceptable form of treatment had been offered they might then have accepted it. None of this group were later referred back to the service, in contrast to both the no-show and dropout groups, small numbers of patients from each being referred back to the service by their G.P.s since the end of the study period.

5.5 SUMMARY AND DISCUSSION: TREATMENT AND DISCHARGE

5.5.1 Summary

Treatment methods employed are described, the mean length of treatment was 6.7 sessions. An eleven category system for classifying the termination of treatment is described, and the three main treatment outcome groups are compared on the number of patient variables. The characteristics of patient in the five non-treatment categories are described briefly.

5.5.2 Discussion

Of the 358 patients discharged after a course of treatment 44% were discharged improved, 36% dropped out, and 9% were discharged unimproved. These outcome figures are not as impressive as Reid and Khan's (1983) assessment that 73% of 83 treatment cases "recovered totally or partially", and the dropout rate they report is also half of the rate found here. However it is difficult to compare reports without information both on the criteria used for allocating patients to categories, and also on the chronicity of the sample. The only other evaluation of psychologist conducted treatment in the literature reporting outcomes in this way is Clark's (1979) paper. He reports that 50% of a treatment group of 24 patients showed "great improvement", 37.5% showed "slight improvement" and 12.5% did not change. As Clark's "great improvement" category is similar to the DI category here his results are roughly similar, however he employed a small sample and also does not report on chronicity.

Waydenfeld and Waydenfeld (1980), in their large study on counselling

in primary care discussed in the Introduction, report that counsellers rated 34% of cases as "very much improved", 48% as "somewhat improved" and 19% as "not improved". However their results are also not comparable to those reported here for three reasons, firstly their patient sample had a large proportion of marital and relationship problem cases, secondly treatment dropouts were included in their ratings and thirdly they again do not report data on the length of patients' problems.

In conclusion, it is not possible to compare the discharge classification system used here to other reports because of different methodologies or insufficient available data. A G.P. rating of outcome employed in this study was more comparable to other research, and data on this will be reported in Chapter 7.

Two prognostic signs were identified which related to discharge outcome, firstly DU patients were more likely to be off work sick at admission than DI patients, and secondly DU patients were significantly older than DO patients. However there were no differences between the groups either in self or psychologist rated severity, or in chronicity. The two conclusions to be drawn from this are firstly that being off work sick is a poor prognostic sign, and secondly that older patients tended to fare worse in treatment, whilst younger patients were more likely to drop out. There will be a further discussion of prognostic indicators in the next two chapters.

CHAPTER 6

EVALUATIONS OF THE OUTCOME OF TREATMENT

6.1 THE FOLLOW-UP SAMPLE

As a number of the analyses described below will be using data from the follow-up sample it is necessary to first describe how this sample was gathered and how it compares to the population of patients referred for treatment.

Between 1979 and 1981, all discharged patients from the six treatment groups (DI,DO,DU, Crisis gone, DC and Student) were followed up six months after treatment. Only those patients for whom a G.P. follow-up was obtained were used in the study group. By mid-1981 admission, discharge and follow-up data had been gathered on 177 cases, this being just over half of the total discharged population at the end of 1981. The discharge categories of this group in comparison to those of the whole group are shown in Table 6.a. Inspection of the table shows that there was considerable uniformity in this respect between the series of follow-up cases and the whole discharge sample. The follow-up group were also compared to the whole sample on the pre-treatment measures discussed in Chapter 4, there were no differences between the two populations on any measure. The 177 patients in the follow-up group are therefore a representative sub-sample of the total treatment population.

Table 6.a: Discharge Categories of Whole Discharge Sample and of F.U. Group

	Follow-up N = 177		Discharged N = 348	
	N	%	N	%
DI	81	46%	156	45%
DO	60	34%	130	37%
DU	16	9%	31	9%
DC	11	6%	20	4%
Student	6	3%	8	2%
Crisis Gone	3	2%	3	1%

6.2. PSYCHOLOGIST RATINGS OF TREATMENT OUTCOME

Psychologists' ratings of problem severity and handicap at admission and discharge were obtained for all of the 177 follow-up patients (the form of these ratings was described in Chapter 2). Rating data for these cases was complete although dropout cases had to be rated on the basis of their presentation when last seen.

Each patient was rated on between 1 and 3 problems using a 5-point severity scale. If more than one problem was rated the problems were ordered in terms of priority. Table 6.b presents data on admission and discharge ratings of TOTPRBT (total problem rating therapist), and on the 7 most common types of problem in the follow-up group irrespective of problem priority. Inspection of the table shows that the group of 177 patients improved significantly on the total therapist rating, and on 6 of the 7 subgroups of individual problems. The strongest treatment effect occurred with patients suffering from anxiety and the weakest treatment effect was with agoraphobic patients, there was no significant change in patients with sexual dysfunction.

Table 6.c presents the therapist admission and discharge handicap ratings for the four areas of impact of the patients' problems. The reader will note that the highest levels of pre-treatment handicaps were rated in the areas of Work and Social function (see Chapter 2 for rating guidelines), and that handicap in both of these areas was reduced significantly post-treatment. Initial ratings of handicap in the Family Relationships and Sexual Relationships areas were lower, and although these were also reduced following treatment this was to a lesser extent.

Table 6.b Therapist Severity Ratings Pre and Post Treatment.

	Admission		Discharge		T-test	Sig.
	Mean	S.D.	Mean	S.D.	T	2-tailed
TOTPRBT (N = 177)	5.70	3.1	3.39	3.19	11.04	p < .001
ANXIETY (N = 54)	3.13	0.89	1.92	1.04	8.55	p < .001
AGORAPHOBIA (N = 25)	3.29	0.85	2.94	1.19	2.40	p < .05
SOCIAL PHOBIA (N = 20)	3.36	1.05	2.59	1.4	3.93	p < .001
SOMATIC SYMPTOMS (N = 16)	3.47	0.99	2.47	1.23	3.75	p < .01
DEPRESSION (N = 15)	3.04	0.81	2.12	1.15	3.18	p < .01
FOCAL PHOBIA (N = 13)	4.05	0.97	2.58	1.5	4.62	p < .001
SEXUAL DYSFUNCTION (N = 10)	3.85	1.07	3.28	1.7	1.33	N.S.

6.c Therapist Ratings of Extent of Handicap at Admission and Discharge (N = 177).

	Admission		Discharge		T	P
	Mean	S.D.	Mean	S.D.	Value	2-tailed
Work Handicap	1.29	1.19	0.77	0.92	7.49	p < .0001
Social Handicap	1.34	1.23	0.75	0.93	7.46	p < .0001
Family Handicap	0.66	0.98	0.43	0.85	4.6	p < .001
Sexual Handicap	0.41	0.99	0.32	0.91	2.16	p < .05

This implies firstly that in the therapist's opinion the patients' problems were overall making most impact on their work and social lives and relatively less on their family and personal lives, and secondly treatment was rated as more effectively reducing work and social handicaps than family and sexual ones.

6.2.1. Patient Variables and Changes in Psychologist Ratings of Severity

The relationship between 18 patient variables and changes in TOTPROB was investigated using analyses of variance and Pearsons correlation coefficients. For this purpose a weighted change score was computed using the following formula to produce a new variable, PROBCHGE.

$$\text{PROBCHGE} = \frac{\text{ATOTBROB} - \text{DTOTPROB}}{\text{ATOTBROB}} \times 100$$

This formula produced a percentage change score, PROBCHGE, for each patient weighted for initial differences with a larger score indicating greater relative improvement. The purpose of this was to control for initial differences on a variable with a score range of 0-15. Such a procedure is widely used in therapy outcome studies, for instance Blackburn et.al. (1981) employed a similar weighting procedure in a study of cognitive therapy and drug treatments of depression.

PROBCHGE was then related to 10 category variables, using a series of one-way ANOVAS (SPSS 1970). The first ANOVA, for sex, was significant so all of the further tests were done three times, for the two sexes separately and for the whole sample. The variables tested were: social class, marital

status, (tested twice, for all four marital categories and also for single vs. married), intercurrent physical illness vs. fit, on drugs at admission vs. no drugs, previous psychiatric treatment vs. no treatment, job status at admission, job status at discharge and employed vs. off-sick at admission. Four of the twenty-seven ANOVAS were significant: males previously treated vs. untreated, males at work vs. off work sick, and the same two variables for the whole sample. The ATOTPROB, DTOTPROB, PROBCHGE and ANOVA results for these variables and for sex are all presented in Table 6.d.

The table shows that males and females did not differ in rated severity at admission but by discharge there was a significant difference in severity rating (DTOTPROB: males vs. females, T = -1.98 P = 0.05), as a result of this the ANOVA on PROBCHGE was significant. Similarly there was not a significant difference for ATOTBROB for the variable at work vs. off sick for either the males alone or for the whole sample (T = -2.02, ns and T = -1.6, ns respectively), but there was a larger treatment effect among patients who were at work which led to the two significant ANOVAS for PROBCHGE.

The situation was different with previous psychiatric treatment vs. no previous psychiatric treatment, as the former group were rated as being significantly worse at outset in comparison to untreated patients (ATOTPROB: males PRE TREAT vs. no PRE TREAT: T = -3.46, P 0.001. Whole sample PRE TREAT vs. no PRE TREAT: T = -2.73, P 0.01). However there was a larger treatment effect in the previously untreated group, leading to significant differences on the weighted change score.

Table 6.d Therapist Change Scores: 5 Variables significant by ANOVA

Variable	N	ATOTPRB	DTOTPRB	PROBCHGE	D.F.	F	SIG.
SEX							
Male	83	5.48	2.86	49.21	1	6.51	$p < 0.025$
Female	92	5.92	3.8	33.62			
PRE TREAT. Males							
No P.Treat	48	4.6	1.83	57.03	1	4.69	$p < 0.05$
Pre Treat.	35	6.68	4.28	38.47			
PRE TREAT							
No P.Treat	108	5.2	2.7	45.62	1	4.7	$p < 0.05$
Pre Treat.	69	6.47	4.46	31.9			
AT WORK/ SICK:Males							
At work	52	5.32	2.38	54.79	1	4.55	$p < 0.05$
Sick	14	7.07	5.35	30.0			
AT WORK/ SICK							
At work	86	5.51	2.98	44.76	1	5.71	$p < 0.025$
Sick	20	6.75	5.45	18.88			

KEY: ATOTPRB = Total Therapist Problem Rating at Admission

DTOTPRB = Total Therapist Problem Rating at Discharge

PROBCHGE = Weighted Change Score.

PROBCHGE was then correlated with 8 variables for males and females separately and for the whole sample combined, the variables were: age, length of problem, length of time on drugs, amount of previous treatment, and the four handicap ratings at admission. None of these correlations was significant or approached significance.

6.2.2 Summary: Patient Variables and Changes in Psychologist Ratings of Severity

A weighted change score was computed and 10 category variables were then investigated on this variable, 9 of these being computed for males and females and the whole sample. 5 of these twenty eight ANOVAS were significant: males who had received previous treatment did worse than those who had not, males who were off work sick at outset did worse than those at work, and the same two effects were also found for males and females combined, but not for females alone. For females there was a trend for being off work sick to be associated with poorer outcomes. This led to a more significant difference on this variable for the whole group rather than for males alone. There was also a trend for previously treated females to have poorer outcomes, but this was not large enough to affect the significance level of the effect for the whole group. Males and females did not differ in severity at outset, but males did significantly better in treatment on psychologist ratings. 8 further variables were correlated with a change score for males and females separately and for the whole sample, none of these correlations were significant.

6.3 PATIENT SELF RATINGS

Two forms of patient self-rating data were collated during treatment, firstly patients completed the same 0-5 point problem rating scale employed by the therapist and described in the previous section, and secondly patients also completed the 30 item version of the General Health Questionnaire (Goldberg 1978). Self-rating data for both measures was obtained for 100 patients from the follow-up sample at admission and discharge, and for 73 of these patients at follow-up. Unfortunately it was not possible to collect a balanced set of self-rating data across the discharge categories as patients who dropped out of treatment were unlikely to return their post-therapy ratings or even their self-ratings at admission, this problem is shown in table 6.e, which compares the discharge categories of the 100 cases to the whole sample. The table also presents the discharge categories for the patients who returned the follow-up questionnaire, to be described in the next section.

Inspection of table 6.e shows that the patient self-rating group contained 14% more discharged improved cases and 7% fewer dropout cases than the whole sample. Clearly this is an important discrepancy as firstly the reader will recall that patients who dropped out of treatment received less treatment and were younger than patients who failed to improve, and secondly the excess of discharged improved cases biases the sample towards showing a larger treatment effect. For these reasons the patient self-rating data will be presented but will not be discussed in detail.

Table 6.e: Percentages in Discharge Categories of Whole Sample, Self-Rating Group and follow-up questionnaire Group

	Whole Sample N = 348	Self-Ratings At Admit & Disch. N=100	F.U. Questionnaire N=106
1. Discharged Improved	45%	59%	62%
2. Dropout	37%	30%	26%
3. Discharged Unimproved	9%	9%	10%
4. Discharged Counselled	6%	2%	2%
5. Student	2%		-
6. Crisis Gone	1%		-

Table 6.f: Self-Rating Data at Admission, Discharge and Follow-up

1. Problem self rating (max. possible score = 15)

Admission (N = 100)		Discharge		T Value	Significance 2-tailed
Mean	S.D.	Mean	S.D.		
5.75	3.3	2.39	1.92	10.31	p < .001
Admission (N = 73)		Follow-up		T Value	Sig.
5.71	3.18	2.42	2.15	9.86	p < .001
2. GHQ 30					
Admission (N = 100)		Discharge		T Value	Sig.
19.78	12.82	3.17	3.12	12.94	p < .001
Admission (N = 73)		Follow-up		T Value	Sig.
11.0	9.93	4.2	4.61	8.74	p < .001

Table 6.f presents the admission, discharge and follow-up data for the self-rating group and also presents statistical comparisons using t-tests. Inspection of the Table shows that there were highly significant reductions in both self-rating and GHQ scores at discharge both for the sample of 100 cases and at follow-up for the sample of 73 cases. Following treatment mean GHQ scores have fallen to below the threshold score recommended by Goldberg (1978). These results therefore show a strong treatment effect, which should be treated with caution as 60% of the sample were comprised of DI cases.

6.4 PATIENT FOLLOW-UP QUESTIONNAIRE

Six months after discharge each of the 177 cases followed up with GP data (consultation rate and drug usage) was also sent a follow-up questionnaire. The questionnaire was in four sections, the patient was asked to rate the extent to which they had been "helped" by treatment on a 0-4 point scale, secondly they were asked to rate the current severity of their problem on a 5 point rating scale, the questionnaire specified the priority problem during treatment. Thirdly the questionnaire asked the patient to list any current medication and finally the patient was asked for their comments about their course of treatment. A number of patients did choose to comment, usually upon details of their own cases, the content of these comments is beyond the scope of this thesis however information about them can be supplied upon request.

106 (60%) of the 177 follow-up patients returned the questionnaire, inspection of Table 6.e shows that this was again a skewed sample of patients

with an excess of DI cases and a shortfall of DO cases. Table 6.g presents answers to the first two items of the questionnaire, and gives percentages in each category in terms of the number of patients returning the questionnaire and of the entire sample. In response to question 1 92% of respondents felt that they had been helped either "a lot" or "a bit" by treatment, this figure representing 54.5% of the whole follow-up sample. 8% of respondents felt that treatment had not helped them, and none of the patients felt the treatment had caused any deterioration in their problem. In response to question 2 only 9 patients rated their problem as being "completely gone", but 78.5% (47% of the whole sample) of respondents rated their problem as being "a lot" or "a bit" improved. 13% of respondents, 8% of the whole sample, rated their problem as being "the same" or "worse".

If a "worst case" analysis is made of the views of patients who did not return the questionnaire and it is assumed that they would rated themselves as not benefitting from treatment, the global responses to question 1 are that 54.5% of patients rated themselves as having been helped by treatment, whilst 45.5% of patients would rate themselves as not being helped by treatment. Similarly the global response to question 2 would be that 52% of patients rated themnselves as being improved to varying degrees and 48% would rate themselves as being unchanged or worse.

When interpreting these ratings it is important to note that the questionnaires were completed six months after discharge, so the ratings reflect not only the effects of treatment but also the durability of any treatment effect over that period of time.

Table 6.g Patient Responses to follow-up Questionnaire

1. Do you think that seeing the Psychologist has helped you? Please tick the statement which is closest to how you feel about it.

	N	%(106)	%(177)
A. Seeing the Psychologist has helped me a lot	54	51%	30.5%
B. Seeing the Psychologist has helped me a bit	43	41%	24%
C. Seeing the Psychologist did not help me	9	8%	5%
D. Seeing the Psychologist has made me worse	0	0	0

Total N = 106

2. The problem you were seeing the Psychologist about was (Priority Problem). Does the problem still bother you? Please tick the statement which sums up the effect the treatment had.

	N	%(106)	%(177)
A. The problem is completely gone	9	8.5%	5%
B. The problem is a lot better	54	51%	30.5%
C. The problem is a bit better	29	27.5%	16.5%
D. The problem is the same	13	12%	7.5%
E. The problem is worse	1	1%	0.5%

Total N = 106

6.5 DRUG USAGE

6.5.1 Changes in drug usage

The system adopted for monitoring drug usage and changes in medication was described in detail in Chapter 2. Briefly the possible variations in psychotropic medication were coded using the following categories:

0 - no drugs at any point

1 - same medication at discharge

2 - increased medication

3 - decreased medication

4 - stopped medication

5 - changed medication

6 - started medication

184 (53%) of the 348 discharged treatment cases during the study period took medication at some stage during treatment, similarly 93 (53%) of the follow-up sample took medication at some point between admission and follow-up. Data on these two groups using the above classification system is presented in Table 6.h.

Considering drug usage at discharge first inspection of the Table shows that 63 patients, 34% of drug users, had stopped medication by discharge. This proportion of patients giving up medication is highly

Table 6.h. Drug Usage During Treatment & At Follow-up

	At Discharge (N = 348)			At Follow-up (N = 177)	
0. None at Admission or Discharge	164	47%	0.None at Admission or F.U.	84	47%
% Refer to drug using cases only (N = 184)				(N = 93)	
1. Same	79	40%	1	14	15%
2. Increase	1	0.5%	2	-	-
3. Decrease	29	16%	3	12	13%
4. Off	63	34%	4	43	46%
5. Changed	15	8%	5	18	19%
6. Started	2	1%	6	6	6%
	348			177	

statistically significant (McNemar Test, chi-squared = 55.3, p 0.001 two-tailed). 16% of patients reduced their medication so overall half of drug using patients had reduced or stopped their medication by discharge, 40% of patients were on the same medication, and the remaining 10% had increased, started or changed their medication.

At follow-up 46% of the 93 drug using patients had stopped medication, this proportion was again highly significant (McNemar Test, chi-squared = 26.4, p 0.001 two-tailed). 13% of patients had decreased their medication so overall 59% of patients had reduced or stopped their medication, 15% were on the same medication and 26% had changed to different drugs or started taking medication. Table 6.i presents data on medication use at discharge and follow-up for the 93 patients who had been drug users at follow-up. Comparison of these patients' drug usage at the two points shows that the main changes have occurred in categories 1 and 4, the number of patients taking the same medication has dropped by 19 at follow-up and the number of patients off medication has risen by 13 cases at follow-up. The proportion of patients who have changed their medication has also doubled from 9 to 18 cases, presumably these were cases where either the previous medication was no longer effective or the diagnosis had changed. To summarise the changes shown in Table 6.i, at discharge a third of patients were taking the same medication that they had been taking at admission and a further third of patients had stopped all medication, at follow-up the proportion of patients on the same medication had halved to 15% whilst the number of patients off all medication had increased to nearly half of the sample. Thus 13% of patients successfully stopped their medication after discharge, and examination of the 30 cases who had stopped by discharge revealed that none of them had restarted medication by follow-up.

Table 6.i: Drug use at Discharge of follow-up Pts.

(N = 93)

	At Discharge		At Follow-up	
0. None	4	4.5%	-	
1. Same	33	35.5%	14	15%
2. Increase	1	1%	-	
3. Decrease	14	15%	12	13%
4. Off	30	32%	43	46%
5. Changed	9	10%	18	19%
6. Started	2	2%	6	6%
	93		93	

Table 6.j: Proportions of Male and Females Withdrawing from medication by discharge (total drug using sample at discharge N = 184)

	Males N	%	Females N	%	
Same (1)	21	27%	53	50%	
Off (4)	31	40%	32	30%	
Other drug Codes (2,3,5, & 6)	26	33%	21	20%	
Total	78		106		184

To summarise drug use changes, a significant proportion of patients had stopped medication both at discharge and at follow-up. At discharge 50% of drug using patients, and at follow-up 59%, had reduced or stopped medication. There was no evidence of patients who had stopped medication during treatment restarting during follow-up

6.5.2 Patient variables and drug usage

The relationship between a number of possibly relevant variables and changes in medication was investigated, concentrating on the two largest categories from Table 6.h, these being patients on the same medication and patients who had withdrawn from medication. The advantage of using these groups was that they were of similar size, and also their change in drug use is easy to interpret.

Drug usage was slightly more common among females, 58% of females took medication in comparison to 50% of males, but this difference was not significant. There were however differences between sexes in how they changed their medication use following treatment. These are shown in Table 6.j. The Table shows that 40% of males stopped medication and 27% of males remained on the same medication, whereas 30% of females stopped medication and 50% remained on the same medication. This different pattern of drug usage between the sexes was statistically significant (chi-squared = 13.72, DF = 1, P = 0.001 two-tailed). The reader will recall from Chapter 4 that there was no difference between the sexes in how long drug using patients had been on medication prior to treatment, the greater likelihood of men stopping

medication cannot therefore be explained by drug dependence through length of use.

The two groups of patients who had stopped and those who were on the same medication at discharge were compared on a series of 14 demographic and problem-related variables using Man-Whitney U tests. The variables were: age, length of problem, length of time on psychotropic drugs, length of time off sick for those patients who were off work, the length of previous treatment, the total therapist problem-rating at admission (ATOTPROB), four therapist handicap ratings at admission, the number of treatment sessions received and lastly the number of GP consultations before, during and after treatment. Four of the Mann Whitney tests were significant, and two approached significance at the 0.05 level, data on the six variables is presented in Table 6.k. The Table shows that, in comparison to patients remaining on the same medication, patients who had stopped taking medication by discharge had a shorter problem history, had been taking drugs for less time, received more treatment, and at outset were rated as being more handicapped by their problem at work. They also tended to be younger and to see the General Practitioner less often after treatment, but these last two trends failed to reach significance.

The same set of statistical comparisons were performed between the 43 patients who had stopped medication and the 14 patients on the same medication at follow-up. One variable was still significant with this reduced sample, the OFF group had been taking medication for less time (Mann Whitney U test, $z = -2.29$, p 0.05).

Table 6.k. Demographic & Problem Variables for "Same" & "Off" Drug Groups on Discharge (N = 137).

Variable	"Off" Mean	"Off" S.D.	"Same" Mean	"Same" S.D.	M-Whitney Z.	M-Whitney P (2-tailed)
Length of Problem (yrs.)	6.36	8.42	11.07	10.73	-2.56	p <.01
Length of Time on Drugs (yrs.)	2.76	4.67	6.82	6.7	-3.44	p <.001
N = Work Handicap Rating (0-3)	1.73	1.12	0.84	1.0	-3.09	p <.01
No. of Sessions	8.66	5.24	5.96	4.39	-2.26	p <.05
Age (yrs.)	35.26	11.62	41.24	13.96	-1.73	N.S.
G.P. Consult. Rate Post Treatment (Mean Monthly)	0.34	0.44	0.54	0.56	-1.79	N.S.

The relationship between a series of category variables and drug usage was also investigated, these were: the patient's job status at admission and discharge, social class, whether or not the patient had received previous psychiatric treatment and lastly the proportion of patients in each group who had an inter-current physical illness. The distribution of the first four variables in the OFF and SAME groups at discharge was similar so no further statistical analyses were carried out, however there was a larger amount of patients in the SAME group with an inter-current physical illness (see Table 6.1), but this difference just failed to reach statistical significance at the 0.05 level by two-tailed chi-squared test.

The relationship between four other variables; discharge category, type of problem, type of drug and drug dosage; and drug change was also investigated, these will be discussed in turn.

Firstly, Table 6.m presents the discharge categories by sex for patients in the OFF and SAME groups at discharge. Inspection of the table shows that 81% of patients who stopped medication were DI cases, whilst only 23% of patients on the same medication at discharge were DI cases. Conversely, 49% of SAME patients dropped out of treatment whilst only 11% of OFF patients dropped out, and there were four times as many DU patients in the SAME medication group. Thus the order of discharge categories was DI < DO = DU in the OFF group, and DO < DI = DU in the SAME group. This different distribution of discharge categories between the two groups was highly significant (Chi^2 = 52.3, p 0.001, 2-tailed). Table 6.m also reveals an interesting discrepancy between males and females in drug usage. In the SAME group there are two males but 15 females, this representing 9% of males and

Table 6.1. Proportion of Pts. in 'Off' & 'Same' Drug Groups at Disch.with intercurrent physical illness (N = 137).

	fit		sick		
	N	%	N	%	
"Same" N = 74	50	66%	24	33%	$Chi^2 = 3.25$,N.S.
"Off" N = 63	52	83%	11	17%	

Table 6.m. Discharge Category & Sex of Pts. in 'Off' & 'Same' Drug Groups at Discharge (N = 137).

	OFF						SAME					
	Males		Females		Total		Males		Females		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Discharge Category												
Discharged Improved	24	77%	27	84%	51	81%	2	9%	15	28%	17	23%
Dropout	5	17%	2	6.5%	7	11%	14	67%	22	42%	36	49%
Discharged Unimproved	2	6%	1	3%	3	5%	5	24%	11	21%	16	22%
Counselled Student Crisis Gone	-		2	6.5%	2	3%	-		5	9%	5	6%
Total	31		32		63		21		53		74	

28% of females. Thus discharged improved males were far more likely to stop their medication than were females and it is this factor which largely accounts for the males greater success overall in stopping medication shown in table 6.j.

Secondly the relationship between the patient's problem and drug usage was investigated by plotting the frequency of the ten most common problems across the four largest drug usage categories. The different problem categories all tended to be equally represented across the drug codes, so changes in medication were not related to diagnosis.

Thirdly the role of type of medication was investigated. Clearly, due to the large number of psychotropics currently available (sections 3b: hypnotics, 3c: sedatives and tranquillisers and 3d: anti-depressants of MIMS currently list 121 separate drugs, many available in a variety of dosage strengths), it was not possible to compare individual drugs in respect of the proportion of patients managing to withdraw from them with such a relatively small patient sample. The drugs was therefore classified to the three types employed by MIMS, hypnotics, tranquillisers and anti-depressants, and the distribution of these drugs across the OFF and SAME groups were investigated. Multiple medication, where the patient was taking two or more drugs from the same category or two or more drugs from different categories, was also investigated, and a further group of "other psychotropics" was included for drugs from MIMS sections 3a, 3e, 3f, 3g and 3h (analgesics and anti-pyretics etc.), drugs from these groups occurred only infrequently in the sample.

Table 6.n presents this data. Examining the total frequencies first, the table shows that just over half of this population of patients were taking tranquillisers, a quarter were taking mixed medication, 10 per cent were taking anti-depressants and the remaining 10 per cent were taking hypnotics or other psychotropics. Approximately half the patients from both of the OFF and SAME drug group were prescribed tranquillisers, however the two groups differ markedly in respect of one category, twice as many patients who remain on medication are taking more than one drug and the OFF and SAME drug groups are significantly different in this respect ($chi^2 = 4.53$, p 0.05, two-tailed).

Finally the relationship between drug dosage level at admission and changes in drug uses was investigated. Because of the wide variety of different drugs prescribed to patients in this study this analysis was simplified by selecting only patients taking one tranquilliser from the benzodiazepine family, and again by using only patients who had remained on the same medication throughout or who had withdrawn from medication by discharge. 55 (87%) of patients in the OFF group and 67 (91%) of patients in the SAME group had taken benzodiazepines and were therefore used for the analysis. The drug dosage the patient was taking at admission was converted into a percentage of the MIMS maximum recommended dose. For example the MIMS maximum recommended dose for Diazepam is 60 milligrams daily, a patient taking 25 milligrams daily at admission was therefore on a 42% dosage regime. The mean of percentage dosage scores for the two groups were:

SAME drug (n = 67) = 32%

OFF drug (n = 55) = 41%.

Table 6.n. Type of Drug Used by "Off" & "Same" Drug Groups at Discharge (N = 137).

Type of Drug	"Off" N	%	"Same" N	%	Total N	%
1. Hypnotic	6	10%	4	5.5%	10	7%
2. Tranquilliser	35	56%	37	50%	72	53%
3. Anti-Depressant	10	16%	4	5.5%	14	10%
4. Other Psychotropic	1	1%	3	4%	4	3%
5. Mixed of 1 to 4	11	17%	26	35%	37	27%
Total	63		74		137	

The difference between these scores was not significant (Mann-Whitney U Test, Z = 0.98, ns). There was therefore no relationship between the initial dosage level of benzodiazepine and the patients' ability to withdraw from the drug. There was also no relationship between the specific brand of benzodiazepine and patients' ability to withdraw as the 5 commonest drugs: Diazepam, Lorazepam, Chlordiazepoxide, Clorazepate Pottassium and Clobazam; were equally distributed in the two populations, with Diazepam being the most widely used drug and Lorazepam the second most frequent drug.

6.5.2 Summary: Patient variables and changes in drug usage

The relationship between a number of patient variables and changes in drug usage was investigated by comparing patients who had stopped psychotropic medication at discharge and follow-up to those who had remained on the same medication throughout.

The groups were compared at discharge on 23 variables, and they differed significantly on 7 of these. The patients who stopped medication were more likely to be male, had a shorter history of psychological problems, had been taking drugs for less time and had received more sessions of psychological treatment. OFF patients were likely to have been classified as DI whilst SAME cases were most likely to have been treatment dropouts. Patients who remained on medication were more likely to be taking multiple medication, and had been rated as significantly less handicapped at work at admission to treatment, but there was no difference between the groups in the proportions at work and off sick.

6.6 CONSULTATION RATE

6.6.1 Consultation rate changes

The rationale for using GP consultation rates as an outcome measure was described in Chapter Two. By the end of the three year experimental period consultation rate date for the six months prior to treatment, during treatment and for the six months following treatment have been gathered for a series of 177 patients. In addition two sub-series were gathered, firstly a one year follow-up was obtained by gathering consultation rates during the period six to twelve months from discharge for a series of 49 patients. Secondly consultation rates for spouses and children pre and post treatment, similar to that reported by Waydenfeld and Waydenfeld (1980), were gathered for a series of 23 patients. Both of these sub-series were obtained from Bridge of Allan Health Centre, the large sample was drawn from the entire health district. All of the above consultation rate data and statistical tests is presented in table 6.o. A non parametric statistic was used because, as the reader will note from the table, the standard deviations in this data were large.

The three sections of the table will be discussed in turn. Considering section 1, the whole sample, first the reader will see that the consultation rates are presented in monthly means for the three periods, this is because the length of treatment was variable so this form of presentation is necessary for comparability. The table also includes mean consultation rates for the two six month periods pre and post treatment.

Table 6.o. Changes in Consultation Rates

1. Whole Sample (N = 177) (Brackets contain mean total for period).

Consultations During	Mean Monthly	S.D.	Statistical Comparisons: Wilcoxon Tests-2-tailed
6 mths. pre	0.744 (4.5)	0.758	Pre vs.During: Z = -5.21, p < .0001
During	0.497	0.589	During vs. Post:Z = -1.01,N.S.
6 Mths.Post	0.478 (2.8)	0.862	Pre vs. Post: Z = -5.93, p < .0001

2. Long-Term Follow-up (N = 48)

Consultations During	Mean Total	Statistical Comparisons: Wilcoxon Tests - 2-tailed
6 Mths. pre	4.19	Pre vs. Post: Z = -4,15, p < .001
6 Mths. post	2.35	Post vs. Long Term: Z = 0.54, N.S.
6-12 Mths post	3.14	Pre vs. Long Term: Z = -2.12, p < .05

3. Family Consultations

	6 mths. pre Mean total	6 mths. post mean total	Statistics: Wilcoxon Test - 2-tailed
Patients (N = 23)	4.52	2.23	Z = 4.3, p < .001
Spouses (N = 23)	1.87	2.04	N.S.
Children Below 16 (N = 22)	1.32	1.36	N.S.

Extrapolating from the six month figure, before treatment patients were consulating their GP nine times per year, this being three times the rate for the general population reported by Shepherd et al (1966) and by Fairley (1984) who reported figures from one of the practices in this study, Bridge of Allan Health Centre. As reported in the Introduction, Shepherd et al (ibid) reported that psychiatric patients consulted their GP at twice the rate for the general population (the figures being 6.4 and 2.6 consultations per annum respectively: Ibid, p: 77 and 129), so the sample here was consulting at a higher rate. However this data may have been affected by consultations rising during the six months prior to referral, (Freeman & Button 1984), and in the absence of figures for the whole year prior to referral this more frequent consultation rate should not be regarded as being particularly significant.

Examination of section 1 of table 6.o shows that consultation rates dropped by 33% during treatment in comparison to the previous six months, this reduction was highly statistically significant. Similarly during the six months following discharge the consultation rate was 36% lower than the rate prior to treatment, this reduction was also highly significant. There was no difference in consultation rates during treatment and following treatment.

Section 2 of table 6.o shows consultation data for a one year follow up of 48 cases. Following treatment this group of patients were consulting at a 46% lower rate, this reduction was again highly significant. The consultation rate rose during the period six to twelve month after discharge, so that patients were now consulting only 25% less often prior to treatment. This reduction however was still significant at the 0.5 level 2-tailed. There

was no significant difference in consultation rates between the two follow up periods.

Section 3 of table 6.o gives family consultation data for a small series of cases. The patients show the usual post treatment reduction, in this case a drop in rate of 51%, however there was no change in the consultation frequencies of either spouses or children. Because of these negative findings with a small sample, no further family consultation data was gathered. It is of interest to compare spouses and patients consultation rates, prior to treatment patients are consulting more than twice as often as their partners, but following treatment there is little difference in consultation rates between them. Extrapolating to per annum figures, these patients are again consulting at three times the rate for the general population, whilst their spouses have a mean annual consultation of 3.7, this being slightly above the average.

6.6.2 Patient variables and pre-treatment consultation rates

Prior to investigating the relationships between patient characteristics and changes in consultation rates the influence of 21 patient variables on consultation rate pre-treatment was investigated. Two types of statistical analysis were used, analyses of variance and Pearson correlation coefficients. ANOVAS were run on pre-treatment consultation rate and 11 category variables, these were: sex, social class, marital status (run twice for all marital categories and also for single vs married), job status at admission (run twice for all the job categories and also for employed vs off sick), whether the patient had an intercurrent physical illness, whether the

patient was on medication at admission, whether the patient had received previous psychiatric treatment, the patient's discharge category (only DI, DU and DO were used), and the general practitioner's rating of improvement at follow-up (see next Chapter for description of this variable). Three of these ANOVAS were significant, the results are presented in Table 6.p. Two of the effects, that patients off work sick and taking drugs consulted their GPs more pre-treatment, are obvious predictions. However the third finding, that patients who GPs rated as having a poor treatment outcome of follow-up also consulted more pre-treatment, is less obvious. This finding will be examined in the discussion section at the end of the next Chapter.

Pearson correlations were computed between pre-treatment consultation rate and 10 ordinal variables: age, length of problem, amount of time on drugs, length of previous treatment, number of treatment sessions, psychologist total problem rating, and the four handicap ratings. There was a significant positive correlation between length of time on medication and consultation rate (Pearson correlation coefficient = 0.255, N = 70, P = 0.016). The correlation between consultations pre-treatment and the psychologist total severity rating at admission just failed to reach significance at the .05 level (Pearson correlation coefficient = 0.119, N = 177, P = 0.056).

In summary significant relationships were found between four patient variables and pre-treatment consultation rates: patients who attended their GP more often prior to treatment were more likely to be off work sick, to be taking medication and to have been on medication for longer periods, and also

Table 6.p: Pt. variables and consultation rate prior to treatment: 3 significant variables.

Variable	Consult Rate Pre Mean	S.D.	ANOVA F	DF	Sig.
GP Rating					
1 = Improved	0.59	0.62	6.5	1	$p < 0.025$
2 = No Change	0.97	0.69			
Job					
1 = Employed	0.55	0.45	21.3	1	$p < 0.0001$
2 = Off Sick	1.12	0.64			
Drugs					
1 = No drugs	0.57	0.69	7.3	1	$p < 0.01$
2 = On drugs	0.88	0.78			

Table 6.q: Consultation rate change (CONDIFF) trends on 2 variables

Variable	Consult Rate Pre Mean	S.D.	Consult Rate Post Mean	S.D.	CONDIFF	ANOVA F	DF	P
Drugs								
1 = No drugs	0.57	0.69	0.46	1.14	0.109	3.4	1	p=0.067
2 = On drugs	0.88	0.78	0.48	0.52	0.395			
Marital Status								
1 = Single	0.86	0.94	0.32	0.41	0.539	3.2	1	p=0.074
2 = Married	0.69	0.62	0.51	1.01	0.182			

were more likely to receive a GP rating of poor treatment response following treatment.

6.6.3 Patient variables and changes in consultation rates

The relationships between the same 21 variables discussed in the last section and changes in consultation rate (CONCHGE) were investigated. For this purpose a weighted change score, similar to that described in section 6.2.2 was computed using the formula:

$$\text{CONCHGE} = \frac{\text{CONSULTS PRE} - \text{CONSULTS POST}}{\text{CONSULTS PRE}} \times 100$$

11 ANOVAS and 10 Pearson correlations were run on CONCHGE, all were not significant and none approached significance.

Due to this failure to find any relationships using a weighted change score a simpler statistic, CONDIFF, was computed by subtracting consultations post from consultations pre. The same ANOVAS and correlations were then run on CONDIFF.

None of these tests was significant, however two variables did approach significance. Single patients tended to reduce their consultation rate more than married patients, and patients taking medication at admission also tended to reduce their consultation rate more than did non drug using patients. The raw data for both of these effects and ANOVA results are presented in Table 6.q. Inspection of the Table shows that on both variables the group of patients with the higher pre-treatment consultation rate showed

the greater reduction following treatment. However the reader will note that the standard deviations for this data are large, and this probably prevented a statistically significant effect from occurring.

To further investigate possible relationships between consultation rate and patient factors, the same set of statistics described in the previous section on pre-treatment consultation rates were now run on the post-treatment consultation data, in order to test if the same four variables found to influence consultation behaviour were still operative. None of the correlations was significant or approached significance, one ANOVA was significant, patients who were off work sick again having a higher consultation rate ($F = 17.7$, $DF = 1$, P 0.0001). The two other ANOVAS which had been significant prior to treatment, drug status and GP rating, were no longer either significant or approaching significance.

In summary attempts to relate changes in consultation rate to a range of patient variables were unsuccessful. Two non-significant trends were found to be related to CONDIFF, a simple difference score, and an ANOVA across post-treatment consultation rates found a highly significant effect produced by patients being off work sick. In conclusion the relatively simple statistical procedures reported in this section failed to relate the variables examined to the large consultation rate reductions reported earlier.

6.7. POST-TREATMENT JOB STATUS

The admission and discharge job status of the 348 discharge patients is presented in Table 6.r. The Table shows that there were few changes in job

Table 6.r: Job Status and Post Treatment (N = 348)

Job Category	Admission		Discharge	
	N		N	
Employed	167	58%	188	54%
Sick	42	12%	29	8%
Unemployed	24	7%	24	7%
Student	56	16%	49	14%
Housewife	52	15%	49	14%
Pensioner	7	2%	9	3%
Total	348		348	

status following treatment, the two largest changes were in the percentage of patients in employment, which increased by 6%, and in the percentage of patients off work sick which fell by 4%. Neither of these changes were significant by chi-squared test.

6.8. SUMMARY AND DISCUSSION: EVALUATIONS OF THE OUTCOME OF TREATMENT.

6.8.1 Summary

A follow-up sample of 177 patients is described which is representative of the whole sample. Patients improved significantly on psychologist pre and post treatment ratings of severity and handicap. Five patient variables were significantly related to these rating changes, males who were off work sick did worse than those at work, males who had received previous treatment did worse than those who had not, the same two effects were also found for males and females combined. Males also did significantly better than females on psychologist ratings.

Patient self-rating data is presented, also showing a strong treatment effect, however the sample was biased towards DI cases. Data from a six month follow-up questionnaire sent to patients is reported, if a "worst case" analysis is used for non-responders, 54.5% of patients rated themselves as being helped by treatment, and 52% of patients rated themselves as being improved following treatment.

Drug usage changes are reported, a significant proportion of patients had stopped medication at both discharge and follow-up. The relationship between the range of patient variables and drug changes was investigated, 7 were significant. Males were more likely to stop medication than females, and patients who stopped drugs had a shorter history of psychological problems, had been taking drugs for less time and had received more sessions of treatment. Patients who remained on medication were more likely to be taking multiple medication, and had been rated as less handicapped at work on admission. Patients who stopped drugs were more likely to be DI cases, whilst patients who remained on drugs were more likely to be dropouts.

G.P. consultation rates fell significantly during and after treatment. However, a one year follow-up group revealed a slight though non-significant, rise in consultations between 6 and 12 months. There was no effect upon spouses and children's consultation rates. Four variables were significantly related to pre treatment consultation rate, patients who attended more often were more likely to be off work sick, to be on medication and to have been taking medication for longer periods, and also were more likely to be rated as unchanged by theor G.P. at follow-up. No significant relationships were found between patient variables and consultation rate changes. Following treatment, patients who were off work sick consulted significantly more than the rest of the sample.

6.8.2 Discussion

The detailed results reported in this Chapter fall into two sections, outcome evaluations and prognostic factors, they will be discussed in turn.

Considering treatment evaluations first, there were major improvements on all of the measures used following treatment. Without a control group these changes should be treated with caution, however as discussed in Chapter 4 the patient group was predominantly a chronic population who would have been unlikely to improve without some form of intervention. Clearly the most important evaluations are those made at follow-up, as these test the durability of the effects of treatment. At six month follow-up just over half of the patients rated their problems as having improved as a result of treatment, and as this figure is on a "worst case" basis the real effect may have been higher. Reductions in psychotropic drug usage were maintained and increased during the follow-up period, and consultation rate fell by one third post-treatment in comparison with pre-treatment.

Three aspects of the consultation rate data require comment. Firstly post-treatment patients were still consulting at approximately twice the local average. During the six months post discharge patients consulted on average 2.8 times, Fairley (1984) reports an annual consultation rate of 2.8 for a random sample from Bridge of Allan Health Centre (however there are marked regional variations here, Freeman & Button (1984) report a mean annual consultation rate of 4.33 for the six years period 1975-1980 for a Southampton General Practice, whereas Shepherd et al (1966) report a figure much closer to Fairley's of 2.6. Probably the best national averages come from the National Morbidity survey in 1970-71 which, based on data from 53 practices gave a national average consultation rate of 3.0 (Royal College of General Practitioners 1974). Although it is tempting to assume that patients with a good treatment outcome (the DI group) reduced their consultation rate, whilst dropouts and treatment failures did not, unfortunately the data analysis

reported in 6.6.3 did not support this. The main conclusion to be drawn therefore is that, taking an unselected sample of psychological cases, treatment reduces consultation rates but not to the level for the general population. Examination of the four other reports in the literature, which give consultation rates pre and post psychological treatment or counselling, reveal that this is a general phenomenon. In each case post-treatment patients continued to consult at twice the national average (Ives 1978, Koch 1978, Anderson & Hasler 1978, Waydenfeld & Waydenfeld 1980). Freeman & Button (1984) stress that consulting rate changes cannot be properly interpreted without reference to the consulting behaviour for the rest of the practice, unfortunately none of these four studies give data on average consultation rates within the practice.

The second point to note about consultation rates is the rise during the 6 to 12 months period post discharge (see Table 6.o). This data is from a subgroup of 48 patients from Bridge of Allan Health Centre, consultations fell by 44% during the first 6 months post discharge, but were only 25% down during the second period. Clearly this is important as it suggests that the effect of treatment on consultations gradually reduces over time, unfortunately a longer follow-up than one year was beyond the scope of this study.

The final point about consultations concerns the failure to replicate here Waydenfeld & Waydenfeld's (1980) report of significant reductions in spouses and children's consulting rates. The obvious explanation for this is that their patient sample was heavily biased towards marital and relationship problems, it is reasonable to assume that problems of this type would have an impact upon the health of the patient's family.

The second aspect of this chapter warranting attention is the attempt to relate prognostic signs to three outcome variables, these were psychologist ratings, drug usage and consultation rates. This was successful in the case of the first two variables but unsuccessful with respect to consultation rate changes.

When the prognostic signs found for psychologist ratings of outcome and for drug usage changes are compared, it emerges that males tended to do better than females on both variables, and there was also a tendency for chronicity (having received previous treatment, longer history, taking drugs for longer) to be associated with poorer outcomes. Two other indicators of the impact of problems on the patient, being off-work sick and taking multiple medication, were also associated with poorer outcomes. These findings will be discussed with other prognostic signs from the study in Chapter 9.

The failure to find prognostic signs related to the consultation rate changes was disappointing. The obvious explanation of this is that the changes were multiply determined across a heterogeneous patient population, and this prevented the emergence of any simple relationships in the data.

CHAPTER 7

GENERAL PRACTITIONER SATISFACTION SURVEY

7.1: SURVEYS OF GENERAL PRACTITIONERS' ATTITUDES TO CLINICAL PSYCHOLOGY SERVICES

As described in the Introduction (Section 1.4) there are 3 publications in the literature reporting on G.P.s attitudes to an existing psychology service, none of these were published at the time of this survey in 1981.

These papers (Reid & Smith 1982, Liddel et al 1982 and Reid & Kahn 1983), all use different methodologies, and only one is properly evaluative. Reid & Kahn focus on diagnostic agreement/disagreement between psychologists and G.P.s, and Reid & Smith concentrate on G.P.s perceptions of psychologists' role and practice. Liddell et al do report on G.P. satisfaction, but only in respect of reporting by the psychologists, so strictly speaking their paper does not evaluate a service although attitudes on this topic would probably covary with general satisfaction. A further detailed paper on G.P.s attitudes, Eastman and McPherson (1982), although methodologically far sounder does not assess G.P. satisfaction with an existing service.

In summary, at the time of the planning and execution of this survey there were no papers in the literature on the topic of G.P. satisfaction with a psychology service. Since this survey, four related publications have appeared but only one of these, Liddell et al (1982), is properly evaluated and this concentrates on satisfaction with reporting rather than on satisfaction with the service as a whole.

7.2: METHOD OF THE SURVEY

A simple questionnaire was devised by the author containing 5 questions and using a forced choice answer format.. The questionnaire is presented in Table 7.a with data on replies included. Questions 1 and 4 both asked about global satisfaction with the service, whilst questions 2 and 3 asked more specifically about contact with and communications from the psychologist. Question 5 concerned further training in psychological techniques. The questionnaire also asked the GP for any comments he might wish to make about the service.

Each GP was sent a list of the patients he had referred to the service in chronological order of referral, and also a list of all of his patients referred to the service by a psychiatrist, only therapy cases who had received two or more sessions of treatment were included, both active and discharged cases were used. The GP was asked to give a rating of the effects of psychological treatment in each case (see Table 7.b), part of the purpose of the list of patients was to remind the GP about his usage of the service before he completed the satisfaction questionnaire.

The survey was conducted in July and August 1981, by which time 52 GPs had referred cases directly, and a further 9 had had cases of theirs referred by psychiatrists. The questionnaire was sent to these 61 GPs, 51 (84%) replies were received. The 10 non-responders were 8 G.P.s who had not referred directly and two G.P.s who had referred 1 and 2 cases each respectively.

Table 7a: GPs Responses to Satisfaction Questionnaire

1. In your opinion is the Community Clinical Psychology Service a useful addition to Primary Care Services?

	N	%
a. Very useful	26	51%
b. Useful	24	47%
c. Not useful	1	2%

2. Have you had sufficient contact with the Psychologist?

a. Would like more contact	10	20%
b. Present amount adequate	39	78%
c. No need for contact	1	2%

3. Have you been kept sufficiently well informed about your patients who are seeing the Psychologist?

a. Inadequately informed	9	18%
b. Adequately informed	30	60%
c. Very well informed	11	22%

4. Should the Community Psychology Service be retained as a service to G.P.'s?

a. Service should be continued	41	82%
b. Service should be continued and expanded	10	18%
c. Service should be discontinued	0	

5. Would you like training concerning Psychological treatments and techniques for yourself or your staff?

a. Yes	27	60%
b. No	18	40%

7.3 RESULTS OF THE SATISFACTION SURVEY

The replies to the satisfaction questionnaire are presented in Table 7.a.

Overall the responding GPs were very satisfied with the service. 51% rated the service as being "very useful" in response to question 1, whilst a further 47% rated the service a "useful" addition to services. In response to question 4 82% of GPs wished the service to be continued, and a further 18% felt that the service should be expanded.

Questions 2 and 3 were aimed at assessing whether the GPs felt they had sufficiently close liaison with the psychologist. In response to question 2 78% of GPs felt that their present level of contact with the service was adequate and 20% stated that they would like more contact. Replying to question 3 60% of GPs felt that they were "adequately informed", 22% "well informed" and 18% "inadequately informed", about their patients' progress and treatment. Nine GPs who were dissatisfied with the amount of information they had received had all also rated themselves as wishing to have more contact with the service in response to question 2.

In answer to question 5 60% of respondents were interested in further training about psychological treatments, but these Doctors were equally divided between the two alternatives suggested of the psychologist visiting the practice to discuss cases or more formal postgraduate seminars. The one GP who marked the "other" option to question 5 suggested that the psychologist should give specialist training to health visitors and district nursing staff so that they could liaise in treatment.

7.4. GPs RATING OF TREATMENT OUTCOME

The 51 survey respondents referred 261 cases, and a further 44 of their patients had been referred by psychiatrists. The GPs ratings of the effects of treatment are presented in Table 7.b. GPs rated just over half of both types of cases as receiving "definite benefit" from treatment, whilst 23% and 32% of GP and psychiatrist referred cases respectively were rated as unchanged (this 9% difference was not significant by chi-squared test). Six of GP referred cases, 2% of the sample, were rated as deteriorated.

7.4.1. Patient variables and GP rating of treatment outcome

The relationship between a number of variables and the GPs rating of treatment outcome was investigated. Firstly the breakdown of sexes across the two groups was examined, this paralleled the sex breakdown of the whole sample closely (GP rate improved: males 44%, females 56%: GP rate unimproved: males 45%, females 55%). Secondly the relationship between GP rating and the patients' problems was investigated by plotting the incidence of the 8 commonest problems across the two groups, there was again no difference between the groups in this respect.

The characteristics of the patients GPs rated as treatment responders and non-responders were further investigated by taking all of the patients from the "definite benefit" and "no change" categories who had been discharged for between 6 and 12 months at the time of the survey. This procedure produced a series of 85 patients, of whom 59 (69%) were rated as "definite benefit", and 26 (31%) were rated as "no change". The relationship between a number of variables and these categories was then investigated.

Table 7b: GP's Ratings of Treatment Outcome (N = 50)

"What effect has treatment had upon this patient's problems"?

	G.P. Referrals N = 261		Psychiatrist Referrals N = 44	
Definite benefit	146	56%	24	54%
No change	60	23%	14	32%
Deterioration	6	2%	0	
Unable to judge	49	19%	6	14%

Table 7c: G.P. rated improved or unimproved: 2 significant patient factors.

		Definite Benefit (N = 59)		No Change (N = 26)		
		N	%	N	%	ANOVA
Social Class	I	5	9%	3	12%	
	II	20	36%	1	4%	F = 4.8, DF = 4
	IIIA	8	34%	5	37%	p < 0.05
	IIIB	11		5		
	IV	8	14%	9	35%	
	V	4	7%	3	12%	
Job status						
1. Employed		31	53%	2	3.5%	F = 9.06, DF = 1
2. Off sick		12	20%	7	28%	p < 0.01

Firstly analyses of variance were run on the same 10 category variables discussed in the patient characteristics sections of Chapter 6. Two of these ANOVAS were significant, the results are presented in Table 7.c. Inspection of the social class breakdown of the two groups in the Table shows that the difference is produced by the improved group having an excess of cases in social classes 1 and 2. 45% of "definite benefit" patients and 16% of "no change" patients come from social classes 1 and 2, in contrast 21% of the improved group and 47% of the unimproved group come from social classes 4 and 5. The social class distribution of the unimproved group is far closer to that of the population at large (see Fig. in Chapter 4.). The second significant result was that patients who were registered as either being sick or disabled at admission were far more likely to receive a "no change" rating, however as Table 6.c shows there were only 9 patients in the sick group so this finding should be treated with caution.

The second type of analysis conducted across the two groups was on 14 ordinal variables using a series of Man-Whitney U tests. The variables tested were: age, length of problem, length of time off work sick, length of time on medication, amount of previous treatment, number of treatment sessions, consultation rates before, during and following treatment and lastly psychologist total problem rating and the four handicap ratings at admission. The two groups were significantly different on four of these variables, data on these is presented in Table 7.d. The "no change" patients were significantly older, had been taking medication for longer, and consulted their GPs more frequently both before and after treatment. Both groups reduced their consultation rates post treatment, the improved group reducing by 20% and the unimproved group by 25%, however following treatment the unimproved group were still consulting more often than improved patients were

Table 7d: GP rated improved or unimproved unimproved: 4 significant patient factors.

	Definite Benefit (N = 59) Mean	S.D.	No Change (N = 26) Mean	S.P.	M-W Test 2 tailed
Age (yrs.)	33.5	11.9	40.6	12.2	Z = - 2.64 p < 0.01
Time on drugs (yrs.)	3.4 (N = 20)	4.7	7.7 (N = 15)	10.9	Z = - 2.12 p < 0.05
Consults Pre (mean mthly)	0.59	0.62	0.97	0.69	Z = - 2.55 p < 0.01
Consults Post (mean mthly)	0.47	1.31	0.73	0.65	Z = - 2.89 p < 0.01
Consults During Treat (mean mth ly)	0.47	0.52	0.69	0.65	Z = - 1.62 N.S.

prior to treatment. Table 7.d also presents consultation rate data during treatment, although this was not significant. It is interesting to note that the improved group's consultation frequency dropped during treatment and does not increase afterwards whilst the unimproved patients' consultation rate fell during treatment but increased again following discharge.

7.5 GENERAL PRACTITIONERS' COMMENTS ABOUT THE SERVICE

The questionnaire also asked for any comments respondents might have concerning the service, several General Practitioners did make comments and these are reproduced verbatim in the Appendix. Three of these comments raised important issues and will therefore be discussed in detail.

Two GPs commented that patients with long-standing problems had a poor prognosis, one of these specifically saying that the service had been "very useful" with acute cases. However out of the four main types of evaluation reported in Chapter 6 and here: psychologist ratings, drug usage, consultation rates and GP ratings, only one, changes in drug usage, was significantly related to length of problem. The data presented therefore only clearly supports this view with respect of one index of improvement and notably, as reported above, there was no relationship between length of problem and GPs rating of treatment outcome.

The third comment made by one of the survey respondents also concerned chronic cases, this GP suggested that the service should discharge non-responding cases earlier. As was described in Chapter 5 cases that were eventually discharged unimproved were on average given longer courses of treatment than patients who were discharged improved, however the number of

cases involved was small so the actual amount of clinical time taken up with this treatment was not a significant part of the psychologist's workload. However in restrospect it is apparent that those cases that did eventually improve generally showed signs of symptom reduction from the beginning of treatment, this being a phenomenon generally found with behavioural treatments, (Matthews et al. 1974, Blackburn & Bishop 1983) so a more rigorous discharge policy could be adopted where patients who were not showing signs of responding to treatment within, for example, five sessions would be discharged as non-responders.

7.6 SUMMARY AND DISCUSSION: GENERAL PRACTITIONER SATISFACTION SURVEY

7.6.1 Summary

In July 1981 the 61 G.P.s who had had contact with the service were circulated with a satisfaction questionnaire, 51 responded. Overall satisfaction levels were high, and all respondents wished to see the service continued. 60% of G.P.s were interested in further training in psychological treatments. G.P.s rated 56% of their patients as receiving "definite benefit" from treatment, 18% as unchanged, 2% as deteriorated. The relationship between a range of patient variables and outcome was investigated using a follow-up sample of 85 cases. Six variables were significantly related to G.P. ratings, patients with a poor prognosis were more likely to be off work sick at admission, to be older, to have been taking medication for longer and to have consulted their G.P. more both before and after treatment. Patients with a good prognosis were more likely to come from social classes 1 and 2.

7.2.2 Discussion

This Chapter reports three main findings. Firstly after two and a half years of operation G.P.s were generally satisfied with the new service, and all respondents wished to see the service continued. Secondly G.P.s rated over half of their patients as being improved as a result of treatment, and when the more rigorous criteria of a rating six months post discharge is adopted they rated 69% of patients as being improved by treatment, and 31% as unchanged. Thirdly positive relationships were found between a number of patient variables and G.P.s ratings of outcome.

As described in the Introduction there is only one study in the literature on G.P.s attitudes to psychologists to compare these results to. Liddell et al(1982) report that 66% of their sample of 18 G.P.s commented positively on their service, 17% negatively, and overall 48% of their sample were satisfied with communications received from the psychologists, 19% were dissatisfied. The satisfaction levels found here therefore appear to be higher than those reported by Liddel et al, by coincidence their study was also carried out in 1981 and covered the two and a half year period from 1979, however the comparison should be treated with caution as their results were obtained from a sample one third the size of that used for this study.

Surveys of G.P.s attitudes towards Psychiatry (Shepherd et al 1966, Fahy 1974, Mayou 1980, Whitfield & Winter 1980) have not assessed the specific question of G.P.s level of satisfaction with their local psychiatric service, so the results of these surveys are not directly comparable to those reported here. However Whitfield & Winter (1980) report that 41% of their 268 G.P. respondents claimed that it was difficult to get a satisfactory out patient appointment for their patients, and they suggested that the reason for this is that: "these are Doctors who are generally unhappy with the psychiatric services" (Ibid:p.684). Thus it is posible that the level of satisfaction reported here is higher than that found for psychiatric services, but such a conclusion should be treated with great caution. A further relevant finding in the Whitfield & Winter study is that 61% of G.P.s agreed with the statement that: "the treatment of neurotic patients is the job of the G.P.", an investigation of G.P.s attitudes towards this in a district with a psychology service, and a comparison of their assessment of the contributions made to the care of "the neurotic patient" by psychologists and psychiatrists, would be of interest.

One intriguing finding of this survey, which has not been investigated elsewhere, concerns the level of interest shown by G.P.s in training about psychological treatment methods. 60% of respondents were interested in postgraduate seminars or in the psychologist visiting their practice to discuss cases. This finding poses two questions: firstly how would the G.P.s have responded to this question prior to the setting up of the psychology service? It is tempting to assume that there would have been a lower level of interest in psychological treatments before G.P.s had been exposed to working with a psychologist, however the only relevant paper in the literature, Reid & Smith (1982), suggests that this would not have been the case as they report broadly similar attitudes towards psychology among G.P.s with and without experience of a service. It therefore appears that this level of interest would have existed in the health district before the introduction of the service.

The second question is more practical, given the equal split in G.P.s preferences about training how could this best be organised? The author would suggest two strategies, firstly that occasional workshops for G.P.s on psychological approaches to specific problems (viz: insomnia, generalised anxiety) should be organised within the district, and secondly as a pilot scheme the psychologist should propose to visit the practices requesting consultation in order to discuss cases on a rotational basis. Whilst the first type of training method could be highly cost-effective in terms of psychologist time the second would have to be carefully monitored, and may transpire to be impractical in a health district with 28 different practices. However if this were the case G.P.s could be informed of the problem, and be encouraged to attend the psychology workshops. The goals of this type of

teaching programme would be firstly to generally increase G.P.s level of knowledge about psychological problems and treatments, and secondly to specifically encourage them to employ psychological treatments themselves as an alternative to prescribing. The long term aim of these would be that G.P.s would treat simpler cases themselves, referring more complex and severe cases to the psychology service.

The findings concerning prognostic factors reported in this chapter will be discussed in the section on prognosis in Chapter 9.

CHAPTER 8

CONTROLLED STUDY OF TREATMENT OF GENERALISED ANXIETY

8.1 INTRODUCTION

As outlined in the Introduction there are as yet only a small number of controlled trials of psychological treatment in primary care reported in the literature and none of them evaluate the effects of treatment for the commonest psychological problem in primary care, generalised anxiety (Goldberg & Huxley 1980, Marks 1973). This study compared the effects of 12 weeks of treatment to a no-treatment control period with patients suffering from generalised anxiety, which was the most common problem referred to the service. The control group was obtained by randomly assigning patients to treatment or to a 12 week waiting list, following which the control group were then offered treatment. The use of waiting list controls has been criticised however O'Leary and Borkovec (1978) defend the procedure on the grounds that a treatment versus waiting list design is legitimate in the early stages of research with a clinical problem. As psychological treatments for generalised anxiety, in primary care or elsewhere, are only poorly evaluated (Ost 1982, Waddell et al 1984), a waiting list control study was therefore considered appropriate. Additionally the steering committee noted that by the time of the proposed study the average waiting list time was approaching 12 weeks routinely for the service.

8.2 METHOD

8.2.1 Design

Three practices, with three, five and six partners respectively, participated in the study. General Practitioners were asked to refer patients according to the following criteria:

1. Primary diagnosis of generalised anxiety (Spitzer et al 1978 p:24).
2. Patient aged 18-60.
3. No evidence of brain damage, drug or alcohol abuse, depression, psychosis or other major psychiatric disorder.
4. Patient not currently receiving psychiatric treatment.
5. No major intercurrent physical illness.
6. Symptoms stable not deteriorating.

Patients were randomly allocated to the treatment or waiting list group by the General Practitioner opening a trial envelope after obtaining the patient's consent to treatment, this being similar to the randomisation method used by Earll and Kincey (1982) & Catalan et al (1984a). Patients in the treatment group were then sent a first appointment to see one of the three psychologists participating in the trial, and completed the first set of first self-rating questionnaires before that appointment, they completed a further assessment 12 weeks later. Following referral control patients were written to by the author confirming that they would be given an appointment in approximately 12 weeks' time, and asking them to complete the trial questionnaires, when these were returned by post the patient was entered in the control group. When the control period had elapsed the patient was then

offered treatment. G.P.s returned two options at all times (1) not to admit to the trial patients who were eligible (2) to withdraw patients at any time if they felt it was appropriate to do so.

8.2.2 Patient Sample

54 patients were referred for the study. Five patients were rejected as they did not meet the study inclusion criteria, in each case this was because their primary problem was not generalised anxiety. Three of these patients had completed the waiting list period but were found at interview to be suffering from phobias, in each case agoraphobia, they were therefore offered treatment outside of the study and their results were discarded from analysis. Similarly two patients allocated to the treatment group were excluded on the grounds of diagnosis, the diagnosis was made by the psychologist using the six criteria for identifying generalised anxiety described by Spitzer et al. (1978). One patient in the treatment group failed to attend for a first appointment, and one control patient failed to return the first set of assessment questionnaires. Two further control patients completed the first assessment but failed to complete the second assessment, although one of these patients did later attend for treatment. Lastly one patient in the treatment group dropped out of treatment before 12 weeks had elapsed. The remaining 44 patients completed the study. 66% of the sample were female, there being seven males in the treatment group and eight males in the control group.

8.2.3 Measures

Three types of outcome measure were used:

1. Patient self-ratings: patients completed three questionnaires and one self-rating scale. These were the General Health Questionnaire (Goldberg 1978), the Crown-Crisp Experiential Index (Crown and Crisp 1979), the Fear Questionnaire (Marks and Mathews 1979), and the Total Phobic Rating Scale from the Fear Questionnaire was also converted to provide a 0-8 self-rating of whatever patient defined as her main problem. The first two questionnaires were used as general measures of neurotic symptomatology, the reason for their selection being that they represented global measures of emotional adjustment one of which, the GHQ, has been widely used in studies of mental health in primary care, (Goldberg & Huxley 1980), whilst the CCEI has been used extensively in treatment trials with neurotic problems (Crown & Crisp 1979). The Fear Questionnaire was employed as a specific measure of phobic symptoms as these commonly occur as secondary problems in patients with generalised anxiety. The research diagnostic criteria allow for this phenomenon, as category B of the 6 criteria specifically mentions that generalised anxiety may be superimposed upon phobic, or other, symptoms.

2. Consultation rate: General Practitioner consultation rates were gathered for three periods for each group, these being the three months pre-referral, the three months treatment or wait-list time, and the following three months when the control group ended treatment.

3. Psychotropic drug usage: medication levels were recorded at entry, at the end of the trial period and three months after the trial for both groups, changes in dosage were coded using a six category system.

8.2.4 Treatments

Three psychologists were involved in the study, the author treated 14 patients, the other two psychologists treated 4 patients each. Treatments used were all behavioural, although specific techniques varied from case to case. All 22 patients however were trained to relax using exercises presented on audio tape. The number of treatment sessions varied depending on the complexity and severity of individual patients' problems. The mean number of sessions was 6 (range 3-13). The average session length was 30 minutes with 60minutes for an initial interview.

8.3. RESULTS

8.3.1 Pre-treatment differences between the groups

The two groups were compared on 9 problem and demographic variables using ANOVAS and Mann-Whitney tests where appropriate. The sex distribution of the two groups was also compared using a chi-squared test. None of these tests were significant, the raw data is presented in Table 8.a, the two groups with therefore equally matched on problem-related and demographic variables.

The groups were then compared on all four self-rating tests at outset and on each questionnaire subscale using a series of Mann-Whitney tests. Of these 15 comparisons 2 were significant, the results are shown in Table 8.b.

Table 8.a. Controlled Treatment Study: Patient Demographic & History Data

Variable	Control Group (N=22) N	%	Treatment Group (N=22) N	%	ANOVA F	D.F.	Sig.
Had previous Treatment	9	41%	7	32%	0.15	1	NS
On Medication	12	54%	12	54%			NS
Marital Status					0.71	3	NS
Job Status					0.112	5	NS
Social Class					0.066	4	NS

	Yrs. Mean	S.D.	Yrs. Mean	S.D.	Mann Whitney Test Z	Sig.
Age	38.0	13.1	33.2	7.1	-1.16	NS
Length of Problem	11.3	11.6	7.4	8.5	-1.45	NS
Time on Medication	4.6	2.8	4.2	2.9	-0.11	NS
Length Pre Treatments	2.6	4.5	1.7	2.5	-0.48	NS

Note: Raw data on marital status, job status and social class not included as all not significant.

Table 8.b. Pre-Treatment Comparisons between Groups: 2 Significant Self Rating Variables.

CCEI	Treatment G.P. N = 22 Mean	S.D.	Control G.P. N = 22 Mean	S.D.	M-Whitnet Test Z	Sig.
Anxiety Scale	11.81	2.28	8.86	3.9	-2.56	2-tailed $p < 0.02$
Total Score	50.68	11.3	39.4	17.7	-2.34	$p < 0.02$

The Table shows that the treatment group were significantly worse on two self-rating variables, the anxiety sub-scale of the CCEI and the CCEI total score. Inspection of the mean scores for the remaining 13 scales showed that this was a general trend throughout the data, the randomisation procedure had therefore in this respect been unsuccessful in that overall severer cases had been allocated to the treatment group. However the design used for the study does control for this in two ways:

1. In the main analysis each patient is used as his own control.
2. Treatment scores were also gathered for the control group when they subsequently received the same length and course of treatment.

8.3.2 Patient self-ratings

The within-groups effects of treatment were examined by comparing the pre and post experimental period scores on each of the 15 self-rating scales, using Wilcoxon tests. The results of these analyses for the treatment group, control group and for the control group's subsequent period of treatment are presented in Tables 8.c and 8.d, the data is also presented graphically in fig. C.

Inspection of Table 8.c, which presents intra-group comparisons from the treatment group, shows that the treatment group improved significantly on the total score of all 4 tests used, and also on 6 of the 11 subscales of the FQ and CCEI. The largest single reduction was on the GHQ pre to post treatment, the mean score of which dropped by 54% to to a mean of 6.9.

Table 8c: Within group comparisons of self-rating outcome measures: treatment group (N = 22)

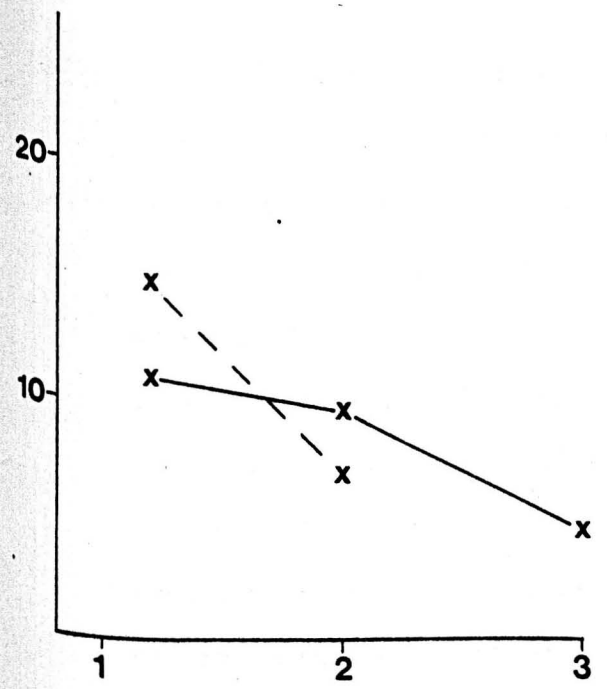
Measure		Mean	S.D.	Wilcoxon Test Z	Significance (2-tailed)
G.H.Q.	Pre	15.0	8.7		
	Post	6.9	6.9	-3.57	$p < 0.001$
F.Q.:					
AGORA	Pre	11.5	9.8		
	Post	8.3	9.3	-2.23	$p < 0.05$
BII	Pre	11.2	7.0		
	Post	10.5	6.2	-0.62	N.S.
SOC.	Pre	15.7	8.5		
	Post	13.9	5.9	-1.16	N.S.
SOM.	Pre	16.6	8.2		
	Post	10.6	5.2	-3.35	$p < 0.001$
PHOBIA	Pre	3.9	2.0		
	Post	3.0	2.0	-1.73	N.S.
TOTAL	Pre	56.5	26.7		
	Post	44.6	20.3	-2.69	$p < 0.01$
C.C.E.I.:					
ANXIETY	Pre	11.7	2.3		
	Post	9.7	3.5	-2.74	$p < 0.01$
PHOBIA	Pre	7.5	4.3		
	Post	6.4	4.5	-1.94	$p < 0.05$
OBSESS.	Pre	9.8	3.4		
	Post	9.1	3.5	-1.29	N.S.
SOM.	Pre	8.8	3.6		
	Post	6.7	3.0	-2.55	$p < 0.01$
DEP.	Pre	7.5	2.7		
	Post	6.3	2.6	-2.29	$p < 0.025$
HYST.	Pre	5.3	3.9		
	Post	4.9	3.6	-0.71	N.S.
TOTAL	Pre	50.9	11.3		
	Post	43.2	13.6	-2.46	$p < 0.025$
PROBLEM SELF RATING:	Pre	3.9	1.3		
	Post	2.4	0.8	-2.93	$p < 0.01$

Key: fear questionnaire subscale = Agoraphobia, blood/Illness/Injury/Social phobia, main phobia.

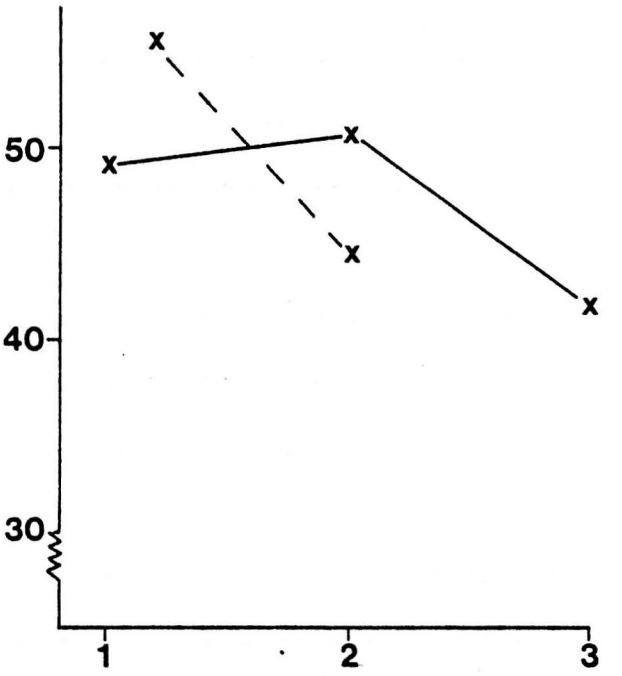
Crown-Crisp Experiential Index Subscales = Anxiety phobias, Obsessions, Somatic symptoms, Depression, Hysteria.

Table 8.d. Within Group Comparisons of Self-Rating Outcome Measures by Wilcoxon Tests: Control Group (Key 1 = Admission 2 = End Wait-List Period, 3 = End of Treatment).

Measure		Mean	S.D.	Wilcoxon Test 1:2 Z	Sig.(2-tailed)	Wilcoxon Test 2:3 Z	Sig.(2-tailed)
GHQ	1	10.9	9.5				
	2	9.8	8.0	-0.91	NS		
	3	4.6	3.1			-3.22	p < 0.001
FQ							
AGORA	1	8.3	7.1				
	2	7.9	7.5	-0.52	NS		
	3	5.1	4.8			-2.33	p < 0.01
BLOOD/	1	11.2	8.0				
1/1	2	11.9	7.9	-0.52	NS		
	3	9.8	6.2			-2.09	p < 0.05
SOC.	1	13.0	7.2				
	2	13.8	8.0	-0.65	NS		
	3	12.5	7.5			-1.69	NS
SOM	1	14.7	8.1				
	2	15.9	10.1	-0.075	NS		
	3	9.6	7.2			-3.02	p < 0.001
PHOBIA	1	3.7	2.6				
	2	3.6	2.4	-0.05	NS		
	3	3.0	2.1			-1.4	NS
TOTAL	1	49.5	23.7				
	2	51.4	28.1	-0.50	NS	-2.41	p < 0.01
	3	42.3	19.8				
CCEI							
ANXIETY	1	8.9	3.9				
	2	9.1	3.9	-0.62	NS		
	3	7.0	3.1			-2.59	p < 0.01
PHOBIA	1	6.0	3.7				
	2	6.9	3.7	-2.39	p > 0.02		
	3	5.3	3.5			-2.05	p < 0.02
OBSESS	1	7.8	4.7				
	2	7.3	4.6	-1.31	NS		
	3	7.1	4.2			-0.41	NS
SOM	1	6.6	3.6				
	2	7.4	4.3	-1.06	NS		
	3	4.9	3.1			-2.91	p < 0.01
CCEI							
DEP.	1	5.5	3.8				
	2	6.1	3.8	-0.43	NS		
	3	6.0	3.7			-0.23	NS
HYST.	1	4.6	3.2				
	2	4.8	3.1	10.43	NS		
	3	4.7	3.0			-0.39	NS
TOTAL	1	39.4	17.7				
	2	41.6	18.0	-1.73	NS		
	3	31.8	13.4			-2.62	p < 0.01
PROB.SELF							
RATING	1	3.8	1.2				
	2	3.9	1.4	-0.04	NS		
	3	2.2	0.9			-3.12	p < 0.001



GENERAL HEALTH QUESTIONNAIRE



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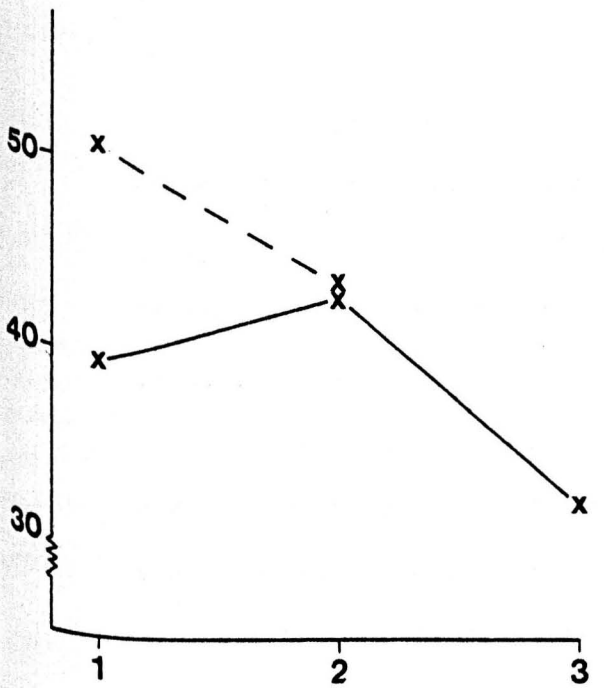

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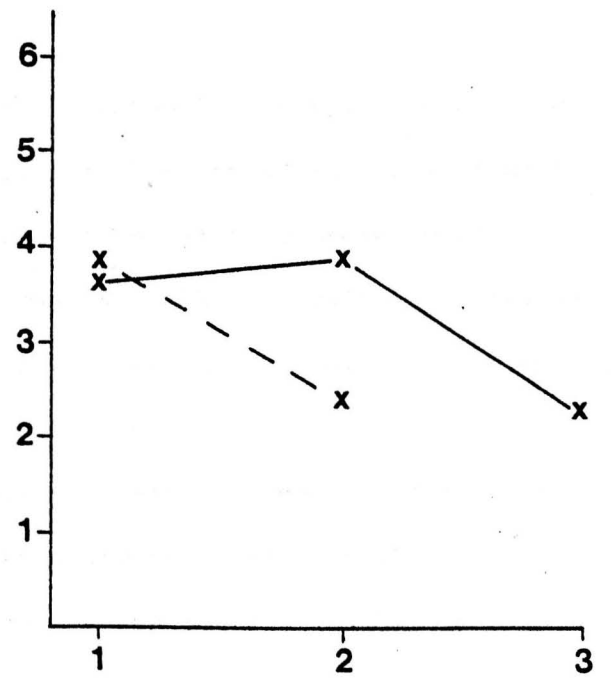

PROBLEM SELF-RATING

KEY: x— —x treatment group

x——x control group

1 Admission

2 End of treatment or waiting-list period

3 End of treatment for control group

Fig C: Treatment and Control Group mean score on self-assessment measures

The data presented in Table 8.d, which presents intra-group comparisons from the control group, is more complex than Table 8.c as the post treatment scores for the control group are also presented. The Table shows two sets of statistical comparisons, the first being between the pre and post waiting list time self-rating (1:2), and the second between the post waiting list time rating and the ratings made following 12 weeks of treatment (2:3). Inspection of the first column of statistics shows that the control group only changed significantly on one measure during the waiting list period, the CCEI phobia subscale, and this change was in the direction of deterioration. Control patients' symptoms therefore remained stable during the 12 week waiting period. The second column of statistics shows that when control patients entered treatment they improved significantly on the total score of all 4 tests, and on 6 of the 11 subscales of the FQ and CCEI.

Comparison of Tables 8.c and 8.d shows that the treatment effect in the control group was remarkably similar to that found in the treatment group. On the subscales of the FQ the control group improved more on Agoraphobia than did the treatment group (p 0.01 vs 0.005), and also improved significantly on the Blood/Illness/Injury subscale whereas the treatment group did not change on this scale. On the CCEI the treatment group improved significantly on 4 out of the 6 subscales, anxiety, phobias, somatic symptoms and depression, whilst the control group improved significantly on the first 3 of these but not on depression. Neither group changed on the CCEI scales which measure personality rather than symptoms: obsessions and hysteria.

On the two scales yielding one total score only, the GHQ and problem-self rating, the treatment effects for the treatment and control

groups were reductions of 54% and 53% on the GHQ, and 38% and 44% on the problem self rating respectively.

Thus the control group did not change in self rated symptom severity during the waiting list period, however when these patients then entered treatment they showed a significant treatment effect similar to that found in the treatment group.

The between groups effects of treatment and the control period was investigated using 4 analyses of covariance on the self rating measures. Analyses of covariance were employed because of the initial differences between the two groups, described in section 8.3.1. The means and standard deviations for these analyses will not be reproduced as they are shown in Tables 8.c and 8.d, the results of the 4 analyses are reproduced in Table 8.e. There was a significant post treatment reduction on each measure at the .001 level, and a significant effect between groups was found at the .001 level on the CCEI and Problem-self rating, at the .01 level on the GHQ and at the .05 level on the FQ. Analysis of covariance therefore demonstrated that there were significant between group differences on all 4 outcome questionnaires when the initial variations in scores were controlled for by the statistical procedure.

8.3.2 Summary

Analysing the results within groups the treatment group improved significantly on all 4 measures employed, and also on 6 of the 11 subscales of the two multi-dimensional scales. The control group did not change during during the waiting list period but showed a similar order of response when

Table 8.e. Between Group Comparison on Self Ratings by Analysis of Covariance (SPSS 1975).

Source of Variation	F	D.F.	Sig.
GHQPRE/POST/ GROUP			
GHQPOST:	20.17	1	$p < 0.001$
GROUP:	7.79	1	$p < 0.01$
EXPLAINED:	13.98	2	$p < 0.001$
FQPRE/POST/GROUP			
FQPOST:	49.6	1	$p < 0.001$
GROUP:	5.7	1	$p < 0.05$
EXPLAINED:	27.65	2	$p < 0.001$
CCEIPRE/POST/GROUP			
CCEIPOST:	79.27	1	$p < 0.001$
GROUP:	13.94	1	$p < 0.001$
EXPLAINED:	46.6	2	$p < 0.001$
PSRPRE/POST/GROUP			
PSRPOST:	25.37	1	$p < 0.001$
GROUP:	12.74	1	$p < 0.001$
EXPLAINED:	19.52	2	$p < 0.001$

they entered treatment. A direct comparison between groups using analyses of covariance on the 4 main scales also showed a significant effect of treatment in comparison to the waiting list period.

8.3.3 Consultation rates

Table 8.f presents within group consultation rate data for the two groups across the three periods studied. At outset both groups were consulting their G.P.s on average 11 times per year, the consultation rate of the treatment group fell significantly during the 12 week treatment period and remained at this lower level for the following 12 week period. The consultation rate of the control group remained at the pre-referral level during the waiting list period, and then fell significantly when the control patients entered treatment. However even after these reductions both groups were consulting at twice the average rate for the general population (see section 6.6.1).

8.3.4 Drug usage

12 patients in each group took psychotropic medication at entry to the study, none of the patients commenced medication during the course of the study. Table 8.g presents a breakdown of change in medication during the study. There were no significant differences in drug usage between the two groups. Of the 24 drug using patients 9 remained on the same medication throughout, 10 had decreased or withdrawn from medication at the end of the study, and 5 patients had been switched to different medication. Thus overall there was a clear trend of reduction in medication for both groups. There was

Table 8f: Consultation Rates.

Treatment Group			Wilcoxon Tests		
	Mean	S.D.		Z	Sig. (2-tailed)
A 3 Mths.Pre	2.86	2.3	A : B	-2.48	$p < 0.02$
B 3 Mths.Treatment	1.67	1.8	A : C	-2.17	$p < 0.05$
C 3 Mths.Post	1.67	2.6	B : C	-0.54	NS
Control Group			**Wilcoxon Tests**		
	Mean	S.D.			
A 3 Mths.Pre	2.6	2.0	A : B	-1.33	NS
B 3 Mths.Wait-List	2.2	2.8	A : C	-2.22	$p < 0.025$
C 3 Mths.Post	1.5	2.0	B : C	-0.74	NS

Table 8g: Drug Usage by both groups at end treatment or waiting-list (1) and 3 months later (2). Changes are coded against drug status at admission, the same drug code is used as in Chapter 6).

	Treatment Group (1)	Treatment Group (2)	Control Group (1)	Control Group (2)
0. No drugs at any point	10	10	10	10
1. Same dosage	5	5	4	4
2. Decreased dosage	7	5	-	-
3. Increased dosage	-	-	-	-
4. Off	-	1	2	4
5. Changed drug	-	1	6	4
6. Started drug	-	-	-	-
	22	22	22	22

no difference in the treatment effect, as measured by the questionnaire, between patients who were taking medication and those who were not.

8.4 SUMMARY AND DISCUSSION: CONTROLLED STUDY OF TREATMENT OF GENERALISED ANXIETY

8.4.1 Summary

44 patients suffering from generalised anxiety were randomly assigned to either a group given 3 months behaviour therapy or to a 3 month waiting list group. Three types of outcome measure were employed, self-ratings, consulation rate and drug usage. Patients in the behaviour therapy group improved on several self-rating scales, control patients did not change. Consultation rates with the patients' General Practitioners were significantly reduced in the treatment group, the control group patients reduced their consultation rate only when they eventually entered treatment. 12 patients in each group took medication, there were no significnant differences between groups in medication usage at the end of the experimental period. When the control group entered treatment they showed a similar order of treatment response on the self-rating measures.

8.4.2 Discussion

The main finding of this Chapter is that treatment produced a significant improvement in four questionnaire measures of anxiety, and that a control waiting list group did not change during the same period. The effect of treatment was corroborated by the similar order of improvement shown by control patients when they entered treatment.

Ost (1982) criticises studies on psychological treatments of generalised anxiety, which have mainly employed student subjects, for failing to show clinically significant improvements in symptoms. Two lines of evidence are available from the study presented here show that in this case treatment effects made a real impact upon patients' problems. Firstly, of the 22 treatment group patients 11 were "discharged improved" at the end of the trial, 6 received further treatment and were then also "discharged improved". 3 patients were also treated further, but were eventually "discharged unimproved", 2 patients dropped out during further treatment. Thus 77% of treatment group patients showed substantial clinical improvement. The second line of evidence on this point is the post treatment GHQ scores of both groups, in each group mean scores fell to around the threshold for "caseness" recommended by Goldberg (1978) (threshold = 4/5, treatment group GHQ post = 6.9, control group GHQ post = 4.6), and to well below the revised threshold score of 9 recommended by Finlay-Jones and Murphy (1979). Thus in terms both of practical clinical outcome and of a well validated questionnaire measure treatment showed clinically significant effects.

A further important finding of this study was that neither consultation rate nor the self rating increases were reduced during the waiting-list-period. This was in spite of G.P.s having diagnosed the patients as suffering from generalised anxiety, and therefore recognising that the main presenting problem was psychological. The only conclusion to be drawn from this is that the two or more consultations patients made during this period did not aid them, even though their G.P. had correctly diagnosed their problem. This finding is in marked contrast to Catalan et al's (1984a) report that patients with "minor affective disorders" responded significantly and equally to either counselling or drug therapy, both treatments being conducted

by the patient's own G.P. However the mean lengths of symptoms in the Catalan et al (ibid) study was very short, 86% of patients in each group having had their complaints for under 12 weeks, in contrast the mean duration of problems in this study was 9.4 years. It therefore appears that G.P. management alone of chronic generalised anxiety is ineffective, whether or nor medication is being employed, whilst recently occurring psychological disorders are easily treated. This conclusion is in line with the findings of the studies of the natural history of psychological disorders reviewed in Chapter 1.

Since this study was completed a further treatment outcome study on generalised anxiety has been completed by the author and co-workers (Power et al 1984a,b). Power et al improved on the design used here in three main ways, firstly by the use of the Present State Examination (Wing et al 1973) to diagnose patients as generalised anxiety cases prior to entry to the study, secondly by the use of a blind assessor to evaluate outcome, and thirdly by the use of psychological testing in the control groups to control for the effects of attention alone. 30 patients were allocated to one of three treatment conditions: cognitive behaviour therapy, diazepam and placebo, over a six week course of treatment. Patients in the diazepam and the placebo groups were given repeated tests of short-term memory and concentration in order to investigate the relationships between diazepam, anxiety and cognitive performance, test sessions overall lasted for an equal amount of time to treatment sessions. The main outcome measure employed was the Hamilton Anxiety scale (Hamilton, 1959, Power et al 1982). Patients in all three groups improved significantly on the scale, however the treatment effect was significantly greater for the cognitive behaviour therapy group, and there was also evidence of rebound anxiety following the withdrawal of diazepam.

Taken together the results of the study reported in this chapter and of Power et al (1984b) show that psychological treatment for generalised anxiety is significantly more effective than a waiting-list control period, a minor tranquilliser or placebo. It is planned to extend this research work with a major study comparing four different types of management for generalised anxiety in primary care: cognitive behaviour therapy (CBT), diazepam, placebo and CBT and diazepam combined (Power et al 1984c). This proposed study will employ larger patient numbers, 25 cases per group, and a one year follow-up period. One additional goal of this study will be to attempt to relate outcome to two simple typologies of generalised anxiety, "Three Factor Theory" (Lang 1971) and "Intense and Background Anxiety" (Klein 1981, Waddell et al 1984), the aim being to discover if there are sub-types of patients with generalised anxiety who respond differentially to different types of management.

CHAPTER 9

DISCUSSION

9.1 AIMS OF THE STUDY AND MAIN FINDINGS

Seven experimental aims, described in Chapter 2, will be reviewed with a summary of relevant findings.

Aim 1: to describe the use and development of a primary care clinical psychology service in a district where no psychology service for G.P.s had previously existed

Over the 5 year period from January 1979 to December 1983 the number of cases referred annually by G.P.s increased steadily from 156 in 1979 to 278 in 1983. Conversely the number of cases referred by psychiatrists fell from 66 in 1979 to 24 in 1983. G.P.s therefore became the main users of the service, as was orignally intended by the Project Steering Committee.

Similarly the proportion of G.P.s in the health district referring patients increased from half in 1979 to two-thirds in 1983, and the proportion of practices referring increased from 61% to 93% across the same period.

Patients referred were mainly young adults, with an equal division of sexes. 32% of patients were suffering from generalised anxiety or a somatisation disorder, 38% were suffering from phobias. The remaining 30% were suffering from depression (8%), sexual problems (8%) and a variety of specific psychological syndromes or habit disorders. The mean duration of problem was 6.9 years. This was therefore a chronic population unlikely to

recover from their problems spontaneously.

Aim 2: To compare referrals made by G.P.s and psychiatrists to the service.

When compared on a range of variables only two differences emerged between the psychiatrist and G.P. referred cases. Firstly psychiatrist referred patients had had their problems for significantly longer, and secondly there were some differences in the types of problems referred.

Aim 3: To evaluate outcome for an uncontrolled sample using 5 measures (a) to (e).

(a) G.P. consultation rate: the frequency of G.P. consultations of a representative sample of 177 patients fell significantly during the six months period post treatment in comparison with the six months period prior to treatment. A sub group of 48 patients followed up for one year after discharge increased their consultation rate again slightly, but still consulted at a significantly lower level than pre-treatment. In a further sub-group of 23 families there was no evidence of reductions in spouses' and children's consultation rates.

(b) Drug usage: 54% of patients discharged during the study period were on psychotropic medication, a statistically significant proportion of these (34%) had stopped medication by discharge. There was no evidence of patients restarting medication during follow-up, and six months later the numbers of patients who had stopped or reduced medication were slightly increased. By follow-up 46% of drug using patients had stopped medication completely, and 13% had reduced their medication. Thus overall 59% of patients had reduced or stopped their medication.

(c) Patient self ratings: Self rating data on the GHQ 30 (Goldberg 1978) and a 6 point problem self rating scale were collected from a series of 100 patients at admission and discharge, and from 73 of these at follow up. These ratings showed a highly significant treatment effect in the direction of improvement. However, the sample was biased by the inclusion of a disproportionate number of Discharged Improved cases in comparison to the whole sample.

(d) Therapist ratings: Using a simple discharge classification system the therapists rated 45% of treatment cases as Discharged Improved, 9% as Discharged Unimproved, and 37% as having Dropped Out of treatment.

The 177 patients in the follow up sample were rated by the therapist on up to three problem severity scales, and on four handicap rating scales. Highly significant reductions were found on both of these measures. There was an average drop of 41% on the therapist total problem severity scale, and a mean percentage drop of 35% on the four handicap scales. These figures included patients with all forms of treatment outcome, Discharged Improved, Discharged Unimproved and Dropout.

(e) G.P. Ratings: G.P.'s replying to the satisfaction survey rated 56% of an unselected sample of patients, some of whom were still in treatment, as having received "definite benefit" from treatment, 23% of the patients as "unchanged", 2% as having "deteriorated". G.P.'s were unable to judge outcome in 19% of cases, presumably through not having seen the patient since their course of therapy.

Using the stricter criterion of selecting only patients rated 6 months after discharge there were no "unable to judge" or "deteriorated" cases. 69% of patients were rated as receiving "definite benefit", whilst 31% were "unchanged". Thus at follow up G.P.s rated two thirds of their own cases as to some extent being treatment successes, and one third as treatment failures.

Aim 4: To relate patient variables to the outcome measures in order to identify prognostic signs:

Table 9.a and 9.b combine the findings of prognostic signs on the different outcome measures. Table 9.a lists all of the relationships between good and bad prognosis for each of the five outcome measures on which the significant relationships were found. Table 9.b combines these to clarify the number of outcome measures significantly related to each prognostic sign.

Four of the 13 prognostic signs related to more than one variable, and can therefore be assumed to predict general outcome. Of the remaining nine variables, two are contradictory; "More Treatment" being associated with poor outcome by discharge classification and "Less Treatment" being associated with poor outcome by drug status; and should therefore be dismissed. A further finding, that having low work handicap scores at admission related to poor outcome on drug status, is certainly clinically meaningless and is probably a random finding. The remaining six variables are all clinically meaningful, and therefore appeared to be specifically related to one outcome measure alone.

In summary, poor general outcomes were associated with four variables; being off work sick, female sex, being older and taking drugs for longer.

Table 9.a: Prognostic Signs By Outcome Measure.

Outcome measure	Variables related to good outcome on measure	Variables related to poor outcome on measure.
Psychologist Discharge Classification (DI = Discharged Improved DU = Discharged Unimproved DO = Dropped out	1. DI Pts. more likely to be at work.	1. DU Pts. more likely to be off sick. 2. DU Pts. older than DO Pts. 3. DU Pts. more treatment than DI or DI Pts. 4. DO Pts. less treatment than DI Pts.
Psychologist Problem & Handicap Ratings	1. Males 2. Males at work 3. Males no previous treatment	1. Females 2. Men off work sick 3. Males previously treated 4. Men & women off work sick 5. Men & women previously treated.
Drug Usage	1. Males 2. Shorter history of problem 3. Taking drugs for less time 4. More treatment sessions 5. DI cases 6. Taking one drug 7. More handicapped at work at admission	1. Females 2. Longer history of problem 3. Taking drugs for longer 4. Fewer treatment sessions 5. DO cases 6. Taking more than one drug 7. Less handicapped at work at admission
Post treatment consultation rate	1. At work	1. Off work sick
G.P. Ratings	1. At work 2. Younger 3. Taking drugs for less time 4. Fewer Consultations Pre & Post 5. Social class I & II	1. Off work sick 2. Older 3. Taking drugs for longer 4. More consultations Pre & Post 5. Lower social class.

Table 9.b: Hierarchy of Signs of Poor Prognosis and Outcome Measures Related to:

Variables	N. of outcome Measures sig. related to	Outcome Measures
1. Off work sick	4	Disch. class/Psychol. Ratings/Post Treat. Conslt. Rate/GP Rating
2. Female	2	Disch. Class/G.P. Rating
3. Older	2	Disch. Class/G.P. Rating
4. Taking drugs longer	2	Drugs/G.P. Rating
5. Previously treated	1	Psychol. ratings
6. Longer history	1	Drugs
7. Dropping out	1	Drugs
8. Multiple medication	1	Drugs
9. More consultations Pre & Post	1	G.P. Ratings
10. Lower social class	1	G.P. Rating
11. Less handicap at work at admission	1	Drugs
12. More treatment	1	Disch. Class
13. Less treatment	1	Drugs

Aim 5: To survey patient satisfaction with treatment.

The 177 follow up patients were sent a follow up questionnaire, 106 replies were received. If a "worst case" assumption is made for non-responders, 54.5% of patients rated themselves as being helped to some degree by treatment, and 52% rated themselves as being improved to various degrees post treatment.

Thus a minimum of half of patients felt that they had received benefit from treatment six months after discharge.

Aim 6: To survey G.P. satisfaction with the service:

The G.P. satisfaction questionnaire showed high levels of satisfaction with the new service. All respondents wished to see the service continued, and 98% rated the service as a "useful" or "very useful" addition to primary care services.

Aim 7: To conduct a controlled outcome study with the commonest problem referred by G.P.s

Patients suffering from generalised anxiety were randomly assigned to a treatment and to a waiting list control group for 12 weeks. Treatment group cases improved significantly on self rating measures, waiting list group patients, who were receiving treatment from their G.P.s, did not change. However when they did enter treatment control patients showed a similar order of treatment response to the treatment group. In both groups improvement was clinically as well as statistically significant.

9.2 DISCUSSION OF MAIN FINDINGS

9.2.1. Use of the service

From a service usage perspective the psychology service was undoubtedly a success, as a high level of referrals was generated, the majority of G.P.'s in the district referred cases and virtually all of the referrals were appropriate. Our experience suggests that, if similarly organised, a primary care psychology service introduced into a health district where there has been no previous service will quickly gain acceptance and widespread usage among G.P.s

Furthermore the brief study of how patients would have been managed by their G.P.s prior to the introduction of the service (see section 3.8), found that the majority of patients would have been retained in the G.P.s care rather than being referred to another specialist service. This confirmed that one of the main goals of the project, to provide specialist psychological attention for suitable patients who would not otherwise have received specialist care, was being achieved.

9.2.2. Evaluations of the service

When considering the various evaluative measures reported above it is important to remember that all of these findings, except for the waiting list study, are uncontrolled and should therefore be treated with caution. However, the study population was a chronic group who, on the basis of the longitudinal studies reviewed in Chapter 1, would have been most unlikely to recover spontaneously.

Of the 5 types of evaluation employed the most objective, in the sense that they could not be influenced by bias on the part of either the psychologist or of the patient, were consultation rate, drug usage and the G.P. rating of outcome.

The mean consultation rate fell by one third following treatment, this reduction being similar to those reported in the literature (viz: Ives 1978, Koch 1978, Weydenfeld and Waydenfeld 1979), however it continued to be twice the national average. As there was no relationship between discharge category and consultation rate changes, it does not appear that this continued raised consultation rate was caused by treatment failures. Instead it appears that all of the patients, whether or not they have been helped by treatment, continued to consult with their G.P.s at a higher than average rate. One possible explanation for this is the relationship between physical illnesses and psychological problems found by Shepherd et al (1966) and reported in Chapter 1. It would be of interest to follow up a group of psychological treatment responders over a number of years to investigate long term consultation rate changes, the aim being to establish if consultation rate did eventually drop, or remain permanently elevated.

When considering the findings concerning drug usage changes, it is important to note that the mean length of time, over which patients had been taking psychotropics continuously at admission, was 4.66 years. In view of increasing evidence concerning the risks of dependence with long term benzodiazepine use, reviewed in Chapter 1, it can therefore be assumed that this group would have been unlikely to reduce or stop medication unaided.

It was found that there were clinically, as well as statistically, significant changes in drug usage. At discharge 36% of patients had stopped medication, and by follow up this figure had risen to 46%. Patients who did stop the medication had been taking drugs for a shorter period than those who remained on medication, but the mean time on medication for the OFF group was still over two and a half years, more than six times the period by which dependence is likely to be established. In summary the patient sample, in addition to having chronic psychological problems, were also long-term psychotropic drug users who were likely to be dependent. The finding that at six months follow-up just under half this group had stopped medication is strong evidence that this was a treatment effect, rather than the result of spontaneous remission or some other cause.

The third objective outcome measure, G.P. rating, is the most important of the three as it reflects global outcome assessed by a doctor who knew the individual patient well, but was not involved in treatment. Six months after discharge G.P.s rated 69% of patients as receiving "definite benefit" from treatment, 31% as being "unchanged". Clearly the former is crude category which would cover a spectrum ranging from minor reductions in symptoms to total recovery, and further research is required to assess the varying degrees of recovery as assessed by G.P.s. However the finding that two thirds of patients will have benefited from psychological treatment six months after discharge is the most reliable outcome evaluation to emerge from this study.

9.2.3. Prognostic Signs

In the behaviour therapy literature on adult emotional problems in general the many attempts to relate prognostic signs to outcome have been largely unsuccessful. For example, Matthews et al (1981) conclude from their review of prognosis in agoraphobia, which is undoubtedly the most thoroughly researched clinical problem by behaviour therapists, that the only reliable prognostic sign is how a patient responds to the early stages of behavioural treatment.

Earlier work on psychological problems and treatments in primary care (Cooper et al 1969, Kedward 1969, Kedward & Cooper 1969) failed to find any prognostic signs related to outcome other than chronicity. However, more recent research, using different assessment measures, has revealed correlations between ratings of initial severity and quality of social life, and outcome, either at one year follow-up, (Mann et al 1981), or at seven month follow up after a course of counselling or drug treatment (Catalan et al 1984b). Mann et al (ibid) also report that older patients tended to receive more medication during follow up, but age was not related to outcome in terms of symptom change.

Considering the prognostic signs identified in this study in the context of the above literature, three factors which did not emerge as significant are as noteworthy as those that did. Firstly chronicity, which is the most robust factor isolated in the primary care literature, in this study was only related to outcome on one measure, drug usage. The probable reason for this was the small number of patients with problems of recent onset in this study, the reader will recall from section 4.2.3 that only 9% of the

sample had a history of less than one year, and lack of sufficient cases could have prevented the emergence of a statistical effect. The second variable which was nonsiginficant in this study was severity, as rated by the therapist at admission. However, although severity has recently been related to outcome in primary care studies, there is no evidence of such a relationship in the behaviour therapy literature, so it is possible that this study is demonstrating an effect specific to behavioural treatments. A third variable which has recently been reported to be related to outcome in the primary care literature is quality of social life and social supports (Mann et.al. 1981, Catalan et.al. 1984b). The relationship between social adjustment and greater pathology is also well established in the literature on depression (Brown & Harris 1978, Henderson et.al. 1980). The measure of social adjustment used in this study, therapist's rating of social handicap, did not relate to any of the outcome measures. However, this measure referred to the impact of the problem upon the patients' social lives, rather than to the overall quality of their social lives and supports. Social adjustment, in the form found to be important elsewhere in the literature, was therefore not investigated here.

A further obvious prognostic sign is the relationship between diagnosis and outcome. There is little comparative work on this topic in the behaviour therapy literature. Research on the topic in the psychiatric field has tended to show no relationship between diagnosis and outcome for major psychiatric illness (Wittenborn et al 1977, Bleuler 1968), although for minor psychiatric illness there are some reports of a relationship, an example being the Newcastle group's report of a better prognosis for depression than for generalised anxiety at four year follow up (Roth et al 1972). No relationship was found in this study between diagnosis and any outcome measure. However

this topic requires fuller investigation with methodological improvements, the chief of these being equal patient numbers in diagnostic groups and more thorough assessment measures.

Of the four prognostic signs which were associated with two or more outcome measures in the study, one, age, was also reported by Mann et al (1981) as being partly associated with outcome in terms of drug usage. The other three signs that related to poor outcome: being off work sick, taking psychotropic drugs for longer and female sex, are not reported elsewhere and require further investigation. The first two of these variables are intuitively obvious, as they in different ways reflect the extent of impact of the patient's problem on their behaviour and lifestyle. Cooper et al (1969) reported that females tended to have longer courses of psychiatric illness than men, however no treatment study has demonstrated a differential effect between the sexes. This finding could be specific to the therapist in this study, who treated the majority of the patients, but requires further investigation.

9.3 COST EFFECTIVENESS OF THE SERVICE

Cost effectiveness is an increasingly important issue in modern health care planning, and clinicians are now frequently asked to justify service developments in terms of costs and benefits, as well as simply in terms of meeting health needs. The cost effectiveness of this service will therefore be considered, the relevant literature being reviewed first.

Chapman (1979) reviews the literature on the economic analysis of psychiatric care, and also describes the different analysis methods available; cost-accountancy, cost-efficiency, cost-benefit analysis and output value analysis, the last being a variant of cost-benefit analysis developed specifically for use in the mental health field. Chapman criticises much of the work in the field on technical grounds, but defends the principle of attempting to introduce economic analysis techniques into psychiatric care:

> "The economic consequences of clinical psychiatric practice are as relevant as the clinical consequences of economic and administrative decisions. Both must be investigated." (Ibid p.96).

The only study in the literature which has attempted to evaluate the costs and benefits of out-patient behavioural treatments is Ginsberg and Marks' (1977) report on the Maudsley nurse-therapist training course (Marks et al 1977). Ginsberg and Marks review treatment of a cohort of 42 phobic and obsessional compulsive patients, and give a detailed breakdown of outcome both for "intangible benefits" (reductions in symptoms and increases in leisure activity), and for "tangible benefits" (reduced use of health services, reduced cost to the patient and work). They then go on to asses the costs of treatment and, making a series of cost-benefit assumptions based on the literature (viz: that treatment effects will be durable for 3 years plus), then equate the costs of treatment with the benefits accruing from treatment in a series of complex economic computations. The outcome of this procedure is that Ginsberg and Marks demonstrate that, if the benefits of treatment last for 3 years or more, then the prices of the benefits of treatment exceed the cost of treatment by nurse-therapists (In technical economic terminology the Internal Rate of Return, IRR, is 39% if housework is included as a benefit,

17% if it is omitted. Government projects are often required to achieve an IRR of 8-10% to justify implementing admission).

Such a detailed examination of the economics of treatment is beyond the scope of this thesis, however some attempt can be made to quantify the cost of treatment for comparison. Table 9c shows the total cost of running the service for the 3 years: 1979 to 1981. During this period 656 patients were seen by the psychologist (635 for treatment, 21 for assessment) thus the mean cost per patient was £67.2. Alternatively, if it is assumed that the costs of each assessment per case were £20, the costs of treatment per case were £68.7. These figures compare favourably with Ginsberg & Marks (1977) cost figures per patient of £195.45 1974/5, the cheapest financial year of operation of their service (Note: these figures are obtained by dividing the running costs and other costs figures for 74/75 in Table 9 of their paper by the number of patients receiving treatment in that year).

Clearly it is important to consider the degree of comparability between these two sets of costs. Inspection of Table 9.c shows that the total figure includes all of the costs of this service, except for any rental of premises which were provided free by the Health Board. The costs also include payment for one session per week for both the G.P. and a consultant psychiatrist, this was budgeted for in order to ensure medical and psychiatric cover when required. Ginsberg and Marks' running cost figure includes the following: "wages and salaries of trainee nurse-therapists, psychiatrist and psychologist",other costs are: "duplicating, stationery, costs of materials used in treatment and teaching and travel costs" (Ibid p.692). It therefore appears that the cost breakdowns of the two services are similar except for

Table 9.c: Costs of Psychology Service, Jan. 1979 to Dec. 1981.
Costs include: salaries for senior psychologist, part-time secretary and part-time research assistant, National Insurance & Superannuation, equipment, travelling expenses, postage & telephone charges, stationery & supplies, one session per week for Consultant Psychiatrist, one session per week for G.P.

	Total costs p.a.
1979	£14,474
1980	£14,799
1981	£14,822
	£44,095

one major discrepancy, that Marks and Ginsberg include the additional costs of a teaching psychiatrist and psychologist.

If the costs of the two services are compared directly by correcting the cost of treatment in this study for inflation (Economic Trends 1983), the relative cost of psychological treatment to the cheapest year of the nurse-therapist programme becomes £28.28 to £195.45, so that Ginsberg & Marks' treatment is six times more expensive. However a fairer comparison would be to add on the cost of an additional training psychiatrist and senior psychologist to the psychology service costs, as this would control for the presence of these extra staff members in the nurse-therapist programme. If this is calculated using costs at the time of the study the total cost of the service described here becomes £115,311, and the cost per therapy case becomes £180.9. Adjusting this corrected cost figure for inflation, the relative cost of psychological treatment to the nurse-therapist programme becomes £74.18 to £195.45. Therefore Ginsberg and Marks' service is still over twice as expensive, even if the cost of two non-clinical staff are controlled for. The implication of this is that the psychology service need be only half as effective as the nurse-therapist treatment programme, in terms of number of patients with good outcomes, for the benefits to exceed costs. It is difficult to compare clinical outcome between this project and Marks et al's (1977) and Ginsberg and Marks (1977) data as different outcome measures are used. However as the same techniques were being employed, and as all of the patient problems dealt with in the Maudsley studies fall within the remit of this study, it is reasonable to assume that there is an equality of effect, and certainly that the treatment approaches used here will be at least half as effective as the Maudsley treatments.

Note: Section 9.3. The author is grateful to Dr. Peter Bird, Lecturer in Economics at the University of Stirling, for detailed advice on this section.

In conclusion, by comparing the costs of this service to the only detailed report on the topic in the literature, it appears that the benefit costs of treatment would have at least equalled, and probably passed, the costs of running the service.

9.4 FUTURE RESEARCH ON PSYCHOLOGICAL PROBLEMS AND TREATMENTS IN PRIMARY CARE

Various issues in the field which require further research have been mentioned at different stages in this thesis. These can be summarised into three major topic areas.

(a) Comparison of treatments: Comparisons should be conducted between the alternative treatments available within each of the major problem areas in primary care (viz: generalised anxiety, depression, phobias). The obvious candidates for comparison at present are drug therapy, counselling by G.P.s, lay-counselling, cognitive behaviour therapy by psychologists, social case work and simple self-help packages involving little therapist time, such as the use of relaxation audio tapes. Power et al's (1984a and b) study, described in Chapter 8, developed out of this project and is an early part of this comparative evaluative work. If well standardised measures are used, both for patient selection and for problem evaluation, future treatments can be easily compared to the existing literature. Standardisation of research measures has occurred in some areas of the behaviour therapy literature (viz: Matthews et al 1977), and should greatly facilitate progress in this field.

(b) Prognosis and treatment: Following on research comparing treatments the next obvious question concerns differential prognosis, aimed at establishing if certain patient characteristics are associated with a good and

durable outcome from different treatments or a combination of treatments. For example, it might emerge that younger patients with generalised anxiety fare better with cognitive behaviour therapy, whilst older cases have a better outcome with drug therapy or with combined treatment. Such questions may yield equally negative results to the research on prognosis in the behavioural field, however they are nevertheless both important and worthy of further investigation.

(c) Durability of improvements: The third main area requiring further research is the durability of treatment effects. Research on behaviour therapy for agoraphobia has shown that the effects of treatment are stable at follow up periods of up to 9 years (Munby and Johnston 1980). It is clearly important to investigate this question with the other commonly occurring psychological problems in primary care, and to relate this to type of treatment. Secondly, although less important in terms of health care planning, the possible relationships between durability and patient factors should also be investigated.

A further area requiring research specific to psychologists is the question of role, Spector (1984) notes the lack of research comparing relative efficacies of different types of psychologist involvement in primary care. The obvious reason for this is that such research poses considerable methodological problems, for example it would be hard to evaluate the relative effects of a psychologist running a series of G.P. training seminars to his spending the same amount of time setting up a patient self-help group, however these difficulties can and should be overcome. The goal of such research is to be able to deploy the presently sparse psychologist resources in primary care most effectively in terms of patient benefits.

9.5 THE FUTURE OF CLINICAL PSYCHOLOGY SERVICES IN PRIMARY CARE

Clearly the further development of primary care psychology services in this country is dependent upon the sorts of further research investigations described in the last section.

However this study does demonstrate two relevant points about primary care services. Firstly, that the introduction of a psychology service produces widespread and appropriate referring by G.P.s. Secondly, contrary to the warnings in the literature, the volume of referrals generated could be managed by the psychologists involved. In practice two psychologists could provide a service for the district, this giving a population ratio of 1:60,000. Extrapolating this manpower level gives a national figure of just over 900 clinical psychologists working chiefly in primary care. This is arguably a realistic long term service development goal, as it would involve four specialist primary care psychologists in a health district of a quarter of a million population.

An alternative way of analysing referral load is to examine rates as a percentage of list size. The reader will recall from Chapter 3 that the three leading referral practices referred 1%, 0.3% and 0.3% of their list in their leading referral year (see fig: 3.c). The practice referring 1% of their list, Bridge of Allan Health Centre, can be discounted as an indicator as during the study period the psychologist was based in the practice, since the psychology service moved base the Bridge of Allan referral rate has fallen to 0.4% of list size annually. If low referring practices increased their referral rate and an average rate of 0.4% was spread across the district, this would produce an annual rate of slightly over 500 cases. Such a referral load

would be quite feasible, as during the study period one psychologist ran the service with an annual average load of 250 cases.

On the basis of these figures it therefore appears, in contrast to the arguments advanced by McPherson (1981) Spector (1984) and Hood (1979), that primary care clinical psychology services would be feasible on a national level. Such a development is of course already taking place in a peacemeal fashion.

In conclusion, this thesis has attenpted to show that a primary care psychology service meets an unmet health need, and provides effective and lasting benefit for up to two thirds of patients treated. In this chapter it has also been argued that the benefit costs of the service equalled and surpassed the costs of providing the service. Further research on the effectiveness of the various roles psychologist can adopt in primary care is clearly required, however it is becoming increasingly apparent that an individual treatment role is both feasible, and effective at producing real patient benefit.

APPENDIX: CONTENTS

TABLE A: Individual Practice Referral Totals: 1979 to 1982.

Practice	1979	1980	1981	1982	TOTAL	% of G.P. Referrals
Bridge of Allan T	57*	36*	27*	26*	146	19%
Stg.:Viewfield Medical Centre T	6*	51*	36*	43*	136	18%
Alloa: Jago et.al.		25*	38*	40*	123	16%
University Medical Centre	13*	14*	13*	13*	53	7%
Alloa: Chessor et.al. T	12*	10*	11*	5*	38	5%
Dunblane T	10	5	6	7	28	4%
Denny: Davidson et.al.	7*	4*	8*	9*	28	4%
Stg.: Loudon & Brown	3.	4	6	14*	27	4%
Bannockburn Richardson et.al.	6*	5*	6*	4*	21	3%
Alva	1	4*	8*	8*	21	3%
Alloa:Taylor et.al.	4*	11*	1*	2*	18	2%
Callander: Malone Adamson	0	3	6	7*	16	2%
Clackmannan	3	5	4	2	14	2%
Stg.:Shields et.al.	3	3	4*	3	13	2%
Fallin T	0	6*	2*	2*	10	1%
Denny:Smith et.al.	4*	3*	2*	1*	10	1%
Stg.:Kelt & Rankine	0	0	2	6	8	1%
Stg.:Kennedy & Evitt	3	1	1	2	7	1%
Bannockburn: Haig et.al.	0*	1*	2*	3*	6	1%
Stg.:Munn & Mullen	-	-	-	6*	6	1%
Tillicoultry	2	1	2	0	5	1%
Drymen	1	0	2	2	5	1%
Balfron	0	0	0	3	5	1%
Dollar	0	0	3	0	3	
Callander: Williams & Finlay	-	-	-	1*	1	
Cowie	0	0	1	0	1	
Killin	0	0	0	1	1	
	156	184	193	219	752	

Key:
- = Practice not in existence during year.
* = Practice visited by psychologist during year
T = Training practice during period.

GENERAL PRACTITIONERS' COMMENTS APPENDED TO SATISFACTION QUESTIONNAIRE

NOTE: All comments received are shown here verbatim.

1. The Clinic is accumulating an increasing number of patients. Perhaps they should find some way of discharging non-responding cases earlier.

2. I would suggest the specific training of Health Visitors to establish groups for self help.

3. Most of the patients who have not benefited have not persevered, and have defaulted from the clinic.

4. I have referred what I consider to be rather difficult cases and although I felt psychological treatment should be given a try I am not surprised at the outcome. I still feel the service could be valuable for phobias if enough time can be devoted to each patient. I will be interested to receive a summary of the views of the other General Practitioners.

5. I have found the service very valuable but in many cases it is not possible to attribute any improvement to this alone.

6. I think it will be more widely used when it becomes more widely known.

7. The patients have appreciated the service, in all cases of which I have knowledge.

8. I think the service is excellent and Mr. Jerrom is very good and useful. He is diligent and keeps in touch with me very well, and he has been of great help to two of my patients, the other one is beyond help and I don't think he wants it.

9. Many patients find it helpful and constructive to have quite a lot of time set aside for their interviews. They understand readily that the intention is constructive in intent and practice, and designed to assist towards real understanding of themselves and their problems, and thus to cope better with future problems.

10. I think this service has potential, but communicating by letter only is a poor substitute for consultation. This is by no means confined to the service of the psychologist, as it applies to most of our clinic contacts; the problem being to find mutually convenient times for consultations between ourselves.

11. Very useful for "acute" or recent onset problems, but disappointing with chronic neurotics, who show no benefit except another "scalp" to add to the list of people who have failed to cure them.

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